

BRIGHAM YOUNG UNIVERSITY BULLETIN



1959-60 Catalog

Graduate School



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Graduate School Issue
1959-60



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Provo, Utah

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# University Calendar

# 1959-60

# **Autumn Quarter**

September 25, 26 (Friday, Saturday): Registration for all regular and special students. Students will register in an alphabetical order to be announced. A late fee will be charged all students registering after September 26.

September 28 (Monday): Class instruction begins.

October 16 (Friday): Last day on which late registration may occur for Autumn Quarter.

November 6 (Friday): Last day for dropping classes without receiving a failing grade.

November 16 through December 4: Registration for Winter Quarter.

November 26, 27 (Thursday, Friday): Thanksgiving recess.

December 15, 16, 17, 18 (Tuesday, Wednesday, Thursday, Friday): Examination period.

#### Winter Quarter

January 4 (Monday): Class instruction begins.

January 22 (Friday): Last day on which late registration may occur for Winter Quarter.

February 5 (Friday): Last day for dropping classes without receiving a failing grade.

February 22 through March 4: Registration for Spring Quarter.

March 14, 15, 16, 17 (Monday, Tuesday, Wednesday, Thursday): Examination period.

# **Spring Quarter**

March 21 (Monday): Class instruction begins.

April 8 (Friday): Last day on which late registration may occur for Spring Quarter.

April 29 (Friday): Last day for dropping classes without receiving a failing grade.

May 30, 31, June 1, 2 (Monday, Tuesday, Wednesday, Thursday): Examination period.

June 2 (Thursday): Baccalaureate Services.

June 3 (Friday): Alumni Day. Eighty-fifth Commencement Exercises.

# Summer Quarter

June 13 (Monday): Registration for Summer Quarter.

June 14 (Tuesday): Class instruction begins.

July 15 (Friday): First Summer Term closes.

July 18 (Monday): Registration for Second term. Class instruction begins.

August 19 (Friday): Second Summer Term ends.

# Administration and Faculty

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#### GRADUATE COUNCIL

Representatives of Colleges

C. Lynn Hayward, College of Biological and Agricultural Sciences. Term expires

January 1, 1960.

Weldon J. Taylor, College of Business. Term expires January 1, 1960.

A. John Clarke, College of Education. Term expires January 1, 1960.

Blaine M. Porter, College of Family Living. Term expires January 1, 1961.

Daniel L. Martino, College of Fine Arts. Term expires January 1, 1962. Ray R. Canning, College of Humanities and Social Sciences. Term expires January

1, 1961. Keith P. Anderson, College of Physical and Engineering Sciences. Term expires January 1, 1961.

Israel Heaton, College of Recreation, Physical and Health Education, and Athletics.

Term expires January 1, 1961. Chauncey C. Riddle, College of Religious Instruction. Term expires January 1, 1962.

Members at Large Reed H. Bradford. Term expires January 1, 1960.

Bertrand F. Harrison. Term expires January 1, 1961. Leonard W. Rice. Term expires January 1, 1961.

John H. Gardner. Term expires January 1, 1962.

Earl C. Crockett, Educational Vice-President. H. Tracy Hall, Director of Research.

George H. Hansen, Acting Dean, Graduate School; Chairman ex officio.

#### THE STAFF OF THE GRADUATE SCHOOL

B.A., Ph.D., University of California at Los Angeles, 1946, 1951. A. Lester Allen B.A., Ph.D., University of California at Los Angeles, 1945, 1951.

Mark K. Allen Professor of Psychology (1946)
B.A., Brigham Young University, 1926; M.A., Ph.D., Stanford University, 1935, 1955.

Stephen L. Alley Assistant Professor of Educational Philosophy (1956)
B.S., M.S., University of Utah, 1947, 1951; Ed.D., Harvard University, 1958.

Dorald M. Allred Assistant Professor of Zoology and Entomology (1956)
B.A., M.A., Brigham Young University, 1950, 1951; Ph.D., University of Utah, 1954.

R. Chase Allred Associate Professor of Agronomy (1955)
B.S., Brigham Young University, 1948; M.S., Kansas State College, 1949; Ph.D., University of Nebraska, 1952.

\*H. Verlan Andersen B.S., Brigham Young University, 1940; LL.B., Stanford University, 1946; LL.M., Harvard University, 1948; C.P.A., State of Arizona, 1943. \*H. Verlan Andersen ... Floyd M. Anderson ...... Associate Professor of Human Development and Family Relationships (1956) Vernon L. Anderson ............ Associate Professor of Modern Languages (1956)

B.A., M.A., University of Utah, 1948, 1949; Ph.D., Stanford University, 1954 Assistant Professor of Religion (1956)
B.S., Ricks College, 1951; M.S., Brigham Young University, 1952; D.S.S., Syracuse
University, 1955. Hyrum L. Andrus ....

J. Roman Andrus ...... .. Associate Professor of Art and Education (1943) B.S., M.S., Brigham Young University, 1942, 1943; Ed.D., University of Colorado,

Assistant Professor of Education (1954 Hyrum J. Babcock Assistant Pro B.A., M.A., Ph.D., University of California, 1939, 1940, 1953. Ariel S. Ballif Professor of Sociology (1938
B.S., Brigham Young University, 1925; M.A., Ph.D., University of Southern Cali-

B.S., Brigham Your fornia, 1937, 1945.

..... Instructor in Music (1951) Blauer L. Bangerter ..... .. Instructor in Physical Education (1953)

B.A., Brigham Young University, 1951; M.S., University of Utah, 1955.

Vermon S. Barney ...... Assistant Professor of Health and Physica Education (1953

B.S., M.S., Brigham Young University, 1948, 1956; Diploma in Physical Therapy, Children's Hospital Association School of Physical Therapy, University of California at Los Angeles, 1951.

and K. Baxter Professor of Mechanical Engineering (1953)
B.S., University of New Mexico, 1948; M.S., Ph.D., Purdue University, 1952, 1953. \*Leland K. Baxter ....

Professor of Bacteriology (1951

Jay V. Beck

B.A., M.A., Brigham Young University, 1933, 1936; Ph.D., University of California (Berkeley), 1940.

Archibald F. Bennett .....

Marian Bennion ....

Joseph T. Bentley ...... Administrative Assistant to the President;

William E. Berrett ......

B.A., LL.B., University of Utah ,1924, 1933.

Max J. Berryessa Assistant Professor of Education (1948)
B.S., M.S., Brigham Young University, 1948, 1949; Ed.D., Stanford University, 1959.

Harold J. Bissell Professor of Geology (1938)
B.S., Brigham Young University, 1934; M.S., Ph.D., University of Iowa, 1936, 1948.

Jacob Bos ... ...... Special Instructor in Music B.A., Brigham Young University, 1937; M.A., Louisiana State University, 1939; M.A., Ph.D., Harvard University, 1941, 1946. Reed H. Bradford .

Merrill K. Bradshaw

Willis H. Brimhall . .... Instructor in Geology (1956) B.S., Brigham Young University, 1949; M.S., University of Arizona, 1951.

Ralph A. Britsch . Associate Professor of English (1938) B.A., M.A., Brigham Young University, 1933, 1951.

H. Smith Broadbent ..... .. Professor of Chemistry (1946)

Robert S. Brownlee

ert S. Brownlee Instructor in Music (1955)
B.Mus., Oberlin College, 1952; B.A., M.A., Brigham Young University, 1954, 1955.
en C. Bryner Professor of Chemistry (1935)
B.S., M.S., Brigham Young University, 1928, 1930; Ph.D., Iowa State College, 1934. Loren C. Bryner .....

Kenneth C. Bullock Professor of Geology (1943)
B.S., M.A., Brigham Young University, 1940, 1942; Ph.D., University of Wisconsin, B.S., N 1949.

Eliot A. Butler . Assistant Professor of Chemistry (1956) B.S., Ph.D., California Institute of Technology, 1952, 1955.

B.A., University of Utah, 1950; M.A., Brigham Young University, 1954.

Gaylon L. Caldwell Associate Professor of Political Science (1951)

B.A., Utah State University, 1947; M.A., University of Nebraska, 1948; Ph.D., Stanford University, 1952.

\*Sterling C. Callabar.

\*Sterling G. Callahan Professor of Education (1953)
B.A., Brigham Young University, 1937; M.A., George Washington University, 1947;
Ed.D., University of Virginia, 1953.

...... Professor of History (1956)

B.S., Brigham Young University, 1928; M.A., Teachers College, Columbia University, 1937. Jennie Campbell ......

Ray R. Canning

B.S., Utah State University, 1942; M.S., Brigham Young University, 1948; Ph.D.,
University of Utah, 1956.

Kenneth L. Cannon Professor of Human Development and Family Relationships (1956) B.S., Brigham Young University, 1935; M.S., Ph.D., Iowa State College, 1948, 1954.

.. Instructor in Journalism (1956) Wayne M. Carle .. B.A., M.Ed., Brigham Young University, 1952, 1956.

L. Bernice Chapman ...... Associate Professor of Nursing; Dean, College of Nursing (1954) Diploma, Community Hospital, Grinnell, Iowa, 1930; B.S., University of Minnesota, 1935; M.A., Columbia University, 1952 Thomas E. Cheney . Associate Professor of English (1945) B.S., Utah State University, 1930; M.A., University of Idaho, 1936. Associate Professor of Education (1957) ... Associate Professor of Botany (1949) Edward L. Christensen ...... Professor of Business Education and Office Management (1953) B.S., M.S., Ph.D., University of Utah, 1938, 1939, 1953. Glen A. Christensen ...... Assistant Professor of Human Development and Family Relationships (1958) B.S., M.S., Utah State University, 1954, 1955; Ph.D., Michigan State University, 1958. ..... Assistant Professor of Chemical Engineering (1957)

Lillian A. Christensen

Assistant Professor of Education (1958) B.S., University of Utah, 1938; M.S., Brigham Young University, 1957; Ph.D., Western Reserve University, 1958.

1956.

Associate Professor of Sociology (1957) ...... Associate Professor of English (1950)

B.S., Brigham Young University, 1928; M.S., University of Southern California, 1934; Ed.D., George Washington University, 1942.

Herald R. Clark Professor of Finance and Banking (1913)
B.A., Brigham Young University, 1918; M.B.A., University of Washington, 1924.

J. Reuben Clark, III Assistant Professor of Modern Languages (1941)

B.A., University of Utah, 1934. James R. Clark

B.A., M.A., Brigham Young University, 1936, 1944; Ed.D., Utah State University, 1958. Marden J. Clark

Monroe H. Clark ...... Associate Professor of Philosophy of Education

\*Selby G. Clark Associate Professor of Personnel and Guidance (1953)
B.S., University of Utah, 1948; M.A., University of Minnesota, 1949; Ed.D., State
College of Washington, 1953.

John Clarke Professor of Educational Administration (1938)
B.S., M.S., Brigham Young University, 1938, 1942; Ed.D., Colorado University, 1950.
ris M. Clinger Assistant Professor of Speech (1936)

Education (1953)

ington State College, 1952.

Marshall R. Craig ......

Lars G. Crandall ...... Assistant Professor of Business Education and Office Management (1944)

B.S., M.S., Brigham Young University, 1944, 1945.

Earl C. Crockett Vice President; Professor of Economics B.S., University of Utah, 1927; Ph.D., University of California, 1931.

Evan M. Croft ...... Associate Professor of Business Education and Office Management (1936)

Curriculum and Teaching; Assistant Professor of Instruction (1957) B.A., Willamette University, 1930; M.A., University of Michigan, 1940; Ed.D., Arizona State College (Tempe), 1956.

Brandt B. Curtis ..... .. Instructor in Music (1955) B.A., Brigham Young University, 1953; M.M., Indiana University, 1955.

Associate Professor of Education (1955) B.S., M.S., Utah State University, 1940, 1947; Ed.D., State College of Washington, Delva Daines

\*J. Kenneth Davies ...... 

College of Fine Arts (1925) B.A., M.A., University of Utah, 1920, 1925; Ph.D., Stanford University, 1934.

Byron Done Professor of Religion (1956)
 B.A., University of Utah, 1928; M.A., Ph.D., University of Southern California, 1937, 1939.

 Lester N. Downing Associate Professor of Personnel and Guidance (1954)
 B.S., M.S., Utah State University, 1947, 1949; Ed.D., Colorado State College of Education, 1951.

 Roy W. Down.

Oxey Instructor in Economics (1956) University of Utah, 1937, 1947; Ph.D., University of California (Berke-Willard B. Doxey ..... B.S., M.S., Uley), 1956.

Henry W. Drewes . 

Keith E. Duke ...... B.A., University of California at Los Angeles, 1947; Docteur de l'Univ., Université de Bordeaux, France, 1950.

William G. Dyer ...... Associate Professor of Sociology (1955) B.A., M.A., Brigham Young University, 1950, 1952; Ph.D., University of Wisconsin, 1955.

L. Earl Associate Professor of Music (1955)
B.A., M.A., Brigham Young University, 1940, 1947; Ph.D., Indiana University, 1952. Don L. Earl ....

E. John Eastmond Professor of Physics (15 B.A., Brigham Young University, 1937; Ph.D., University of California (Berkeley), 1943. ...... Professor of Physics (1951)

Administration (1956) B.S., M.S., Brigham Young University, 1947, 1948; Ed.D., Teachers College, Columbia

University, 1950.
\*Blaine E. Edlefsen Aine E. Edlefsen Instructor in Music (1953)
B.A., Brigham Young University, 1952; M.Mus., Eastman School of Music, University of Probacts 1952 sity of Rochester, 1953.

Robert L. Egbert

B.A., M.A., University of Utah, 1946, 1947; Ph.D., University of California (Berkeley), 1950. Dean B. Farnsworth

B.S., Brigham Young University, 1937; M.S., Massachusetts State College, 1938; Ph.D., Ohio State University, 1941. Raymond B. Farnsworth

M. Charles Faux ......

R. Kent Fielding ...... D. Allen Firmage ...... 

Royce P. Flandro ..... Assistant Professor of Education (1953)

E.S., M.S., University of Utah, 1948, 1950; Ed.D., University of Indiana, 1957. Professor of Physics (1952) Harvey Fletcher vey Fletcher Professor of Physics (1952)
B.S., Brigham Young University, 1907; Ph.D., Chicago University, 1911; hon. Sc.D.,
Columbia University, 1935; hon. Sc.D., Kenyon College, 1942; hon. Sc.D., Stevens
Institute of Technology, 1942; hon. Sc.D., Case School of Applied Sciences, 1942;
hon. Sc.D., University of Utah, 1944; hon. Sc.D., Brigham Young University, 1954.
vey J. Fletcher Associate Professor of Mathematics (1953)
B.S., Massachusetts Institute of Technology, 1944; M.S., California Institute of
Technology, 1948; Ph.D., University of Utah, 1954.

Harvey J. Fletcher .....

Carl Fuerstner ... ........ Special Instuctor in Piano (1951) Diploma, State Academy of Music, Cologne, Germany, 1934.

B.S., M.S., Utah State University, 1941, 1950; Ph.D., University of Wisconsin, 1952.

John H. Gardner n H. Gardner Professor of Physics (1949)
B.S., Utah State University, 1943; M.A., Ph.D., Harvard University, 1947, 1950.

Crawford Gates ... .. Associate Professor of Music (1948) wford Gates — Associate Professor of Music (18 B.A., San Jose State College, 1944; M.A., Brigham Young University, 1948; Ph.D., Eastman School of Music, University of Rochester, 1954.

...... Assistant Professor of Physical Education and Health (1952) B.S., M.S., Brigham Young University, 1950, 1952.

Associate Professor of Speech (1947)

J. Rex Goates .. 

\*Norman Gulbrandsen Assistant Professor of Music (1951)
B.S., University of Utah, 1943; M.Mus., Northwestern University, 1945.
Richard L. Gunn Associate Professor of Art and Education (1948)
B.S., M.S., Brigham Young University, 1947, 1950; Ed.D., Stanford University, 1955.
LeRoy R. Hafen Professor of History (1954)
B.A., Brigham Young University, 1916; M.A., University of Utah, 1919; Ph.D., University of California, 1924; Litt.D., University of Colorado, 1935.

\*Richard W. Hales Associate Professor of Physics (1952)

\*Richard W. Hales Associate Professo B.S., Iowa State College, 1946; Ph.D., University of California, 1952. Associate Professor of Physics (1952)

Wayne B. Hales ....... Professor of Physics and Mathematics; Dean, General College (1930) B.A., Brigham Young University, 1916; M.A., University of Utah, 1922; Ph.D., California Institute of Technology, 1926.

H. Tracy Hall ...... Professor of Chemistry; Director of the Research Division (1955) B.S., M.S., Ph.D., University of Utah, 1942, 1943, 1948.

Merrill J. Hallam ..... ...... Associate Professor of Agronomy; Acting Dean, College of Biological and Agricultural Sciences (1952) B.A., Brigham Young University, 1950; Ph.D., Iowa State College, 1952.

B.A., M.A., Brigham Young University, 1935 1936; Ph.D., Eastman School of Music, University of Rochester, 1941. John R. Halliday .....

Harold I. Hansen .. 

ford N. Hansen Assistant Professor of Chemistry (1958) B.S., Brigham Young University, 1950; Ph.D., Iowa State College, 1956. Wilford N. Hansen ...... Kenneth R. Hardy .....

Charles J. Hart ..... Professor of Recreation and of Physical and Health Education; Assistant to the Dean of the College of Recreation, Physical and Health Education and Athletics (1925) B.S., Utah State University, 1922; M.A., Ed.D., New York University, 1932, 1945.

Milton F. Hartvigsen ..... ...... Professor of Physical Education; Dean of the College of Recreation, Physical and Health Education and Athletics (1956) B.S., M.Ed., Utah State University, 1930, 1939; Ed.D., University of California at Los Angeles, 1956.

Alma Heaton ...... Assistant Professor of Physical Education and Recreation (1953) B.S., M.S., Utah State University, 1950, 1951.

Israel C. Heaton Professor of Recreation (1956)
B.S., M.S., Utah State University, 1940, 1941; Re.D., University of Indiana, 1955.

Armin J. Hill Professor of Physics; Dean of the College of Physical

and Engineering Sciences (1957) M.S., Montana State College, 1932, 1938; M.S., Ph.D., California Institute of Technology, 1949, 1950.

Max W. Hill ....

Lehi F. Hintze Associate Professor of Geology (1968)
B.A., University of Utah, 1941; M.A., Ph.D., Columbia University, 1949, 1951.

Cyntha C. Hirst Instructor in Physical Education (1948)
B.A., University of Utah, 1947; M.S., University of Washington, 1952.
\*Harry Hodson Professor of Civil Engineering (1953) .. Associate Professor of Geology (1955)

B.Sc., B.E., University of Sydney, 1938, 1940.

Leona Holbrook ..... Professor of Physical Education (1937) B.S., University of Utah, 1929; M.A., Ed.D., Columbia University, 1935, 1950.

Robert J. Howell ....

Gordon D. Hoyt ...

Paul V. Hyer ....

.. Professor of English (1946)

Phyllis C. Jacobson ...... Instructor in Physical Education for Women (1957) B.S., M.S., Utah State University, 1953, 1954.

.. Associate Professor of Archaeology (1946) 

Martha R. Jenny

Daniel H. Ludlow ...

```
De Lamar Jensen Assistant Professor of History (1957)
B.A., Brigham Young University, 1952; M.A., Ph.D., Columbia University, 1953, 1957.

Vern H. Jensen Assistant Professor of Personnel and
    Guidance (19
B.S., M.S., Brigham Young University, 1948, 1950; Ed.D., University of Colorado,
1957.
                                                                  Guidance (1949)
Gloria D. Jenson
                                         ....... Instructor in Library Science (1954)
    B.S., Brigham Young University, 1950; M.S., Columbia University, 1954.
J. Lorin Jex .....
                                            Assistant Professor of Speech (1949)
    orin Jex ..... Ass
B.A., M.A., Brigham Young University, 1947, 1950.
Joseph J. Keeler ........... Assistant Professor of Music; University Organist (1935)
B.S., M.A., Brigham Young University, 1940, 1950.
    B.S., Brigham Young University, 1926; M.S., University of Southern California, 1935; Ed.D., University of Oregon, 1955.
Edwin R. Kimball .....
Jean T. Kunz ...... Instructor in Human Development and Family
                                                              Relationships (1957)
    B.S., University of Idaho, 1940; M.A., George Peabody College, 1956.
*Don H. Larsen Associate Professor of Bacteriology (1952)

B.S., Brigham Young University, 1940; M.A., University of Nebraska, 1942; Ph.D.,
Gustive O. Larson ...... Associate Professor of Church History
                                                            and Philosophy (1954)
        M.A., University of Utah, 1920, 1926.
Harold R. Laycock Assistant Professor of Music (1949)
B.A., M.A., Brigham Young University, 1937, 1947.
Robert L. Layton — Assistant Professor of Geography (1954)
B.S., M.S., University of Utah, 1951, 1952.

Harold W. Lee — Professor of Modern Languages (1937)
B.A., M.A., Brigham Young University, 1938, 1940; Ph.D., Stanford University, 1946.

Wesley P. Lloyd — Professor of Personnel and Guidance; Dean of
    B.S., M.S., Brigham Young University, 1927, 1934; Ph.D., University of Chicago, 1937.
                                                                  Students (1935)
    Professor of Finance and Banking (1947) B.S., M.A., Utah State University, 1945, 1948; C.P.A., Utah, 1949; D.B.A., Indiana University, 1957.
Howard D. Lowe
```

B.S., Utah State University, 1946; M.S., Indiana University, 1953; Ed.D., Columbia University, 1955.

...... Assistant Professor of English (1953)

Physics (1955)

B.S., Ph.D., University of California (Berkeley), 1947, 1950.

John E. McKendrick B.A., M.A., University of Utah, 1942, 1949.

Melvin P. Mabey ....... Assistant Professor of History and Political Science (1955) B.S., M.A., Brigham Young University, 1947, 1953; D. Phil., Oxford University, (England), 1955.

Fruman G. Madsen ...... Assistant Professor of Philosophy and Religion (1957)

Religion (1988). M.S., University of Utah, 1950, 1951; A.M., Ph.D., Harvard University, 1957, 1959.

Milton Marshall Professor of Physics (1919)
B.A., Brigham Young University, 1918; Ph.D., University of Chicago, 1924.

.... Associate Professor of Music (1956) Daniel L. Martino ..... B.S., M.A., University of Minnesota, 1938, 1945.

Conan E. Mathews ......

Merlin J. Mecham Associate Professor of Speech (1954)
B.A., Brigham Young University, 1948; M.S., Utah State University, 1949; Ph.D.,
Ohio State University, 1954.

. Assistant Professor of Political Science (1957) sity of Utah, 1956.

.... Instructor in Education (1955) 

1940.

\*Samuel C. Monson Associate Professor of English (1952)
B.S., Utah State University, 1941; M.A., Ph.D., Columbia University, 1948, 1953.

Glen Moore Assistant Professor of Botany (1958)
B.S., M.S., Brigham Young University, 1949, 1950; Ph.D., University of Chicago, 1953. 1953.

Alonzo J. Morley

B.A., M.A., Brigham Young University, 1925, 1931; Ph.D., University of Iowa, 1935.

A. Reed Morrill

Professor of Educational Administration (1948)

B.S., M.S., Brigham Young University, 1928, 1937; Ed.D., University of Oregon, 1948.

Lawrence Morris

Professor of Animal Husbandry (1952)

B.S.A., University of Arizona, 1925; M.S., Texas A. & M., 1928; Ph.D., Louisiana

State University, 1938.

Professor of Food and Nutrition (1957)

B.S. M.S. Utah State University, 1921, 1922; Ph.D., Columbia University, 1933.

Glen T. Nelson Associate Professor of Economics (1954) B.S., M.S., Utah State University, 1942, 1948; Ph.D., University of Illinois, 1950.

K. LeRoi Nelson \_\_\_\_\_\_\_ Associate Professor of Chemistry (1956) B.S., Utah State University, 1948; Ph.D., Purdue University, 1952.

Hugh W. Nibley Professor of History and Religion (1946)

B.A., University of California at Los Angeles, 1934; Ph.D., University of California 1934 fornia, 1938.

Henry J. Nicholes Associate Professor of Health Education (1946)
B.A., Brigham Young University, 1935; M.S., Ph.D., University of Wisconsin, 1939,
1941.

Professor of Chemistry (1933) B.A., Brigham Young University, 1916; M.A., Stanford University, 1924. Jospeh K. Nicholes .....

Quentin R. Nordgren Assistant Professor of Music (1955)
B.A., M.A., Brigham Young University, 1942, 1950; Ph.D., Indiana University, 1955.

Russell R. Rich .....

Grant S. Richards

\*R. Neal Richards .....

B.S., M.S., Utah State University, 1940, 1942.

```
Clinton L. Oaks

Associate Professor of Marketing (1957)

B.A., Brigham Young University, 1948; M.B.A., Ph.D., Stanford Graduate School
of Business, 1950, 1955.
University, 1958.
Glenn Pearson .....
   nn Pearson Assistant Professor of Religion (1951)
B.S., Utah State University, 1949; M.A., Brigham Young University, 1951.
Dean A. Peterson ...... Associate Professor of Business Education and
Office Management; Director of the Summer School (1942)
B.S., Brigham Young University, 1938; M.S., University of Southern California,
1942.

Hugh W. Peterson Associate Professor of Chemistry (1927)
B.A., M.A., Brigham Young University, 1916, 1928; Ph.D., State University of Iowa,
   1936.
Bill J. Pope .....
   Blaine M. Porter ...... Professor of Human Development and
                                           Family Relationships (1955)
   B.S., M.A., Brigham Young University, 1947, 1949; Ph.D., Cornell University, 1952.
Margaret Schow Potter ...... Assistant Professor of Clothing and
                                                      Textiles (1946)
   B.S., Brigham Young University, 1939; M.S., Oregon State College, 1949.
Science (1952)
B.A., Brigham Young University, 1941; M.A., Ph.D., University of Washington, 1943, 1950.
Naoma Rich ...... Assistant Professor of Library Science; Coordinator of Technical Services (1937)
   B.S., Brigham Young University, 1931; Certificate in Library Science, Riverside Library School, 1932.
   B.S., Brigham Young University, 1950; M.A., University of Southern California, 1953.
Owen S. Rich .....
   B.S., Utah State University, 1936; M.A., Brigham Young University, 1949; Ed.D., University of Wyoming, 1955.
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Eldin Ricks

B.S., M.S., Brigham Young University, 1951, 1955.

J. Richard

Associate Professor of Animal Husbandry (1945)

...... Instructor in Speech (1955)

Chauncey C. Riddle ...... Assistant Professor of Religion and Philosophy (1952) B.S., Brigham Young University, 1947; M.A., Ph.D., Columbia University, 1951, 1958.

Avard A. Rigby ....... Director of the Laboratory Schools; Associate Professor of Secondary Education (1957) B.S., Brigham Young University, 1938; Ed.D., University of Utah, 1955. Robert E. Riggs Assistant Professor of Political Science (1955)
B.A., M.A., University of Arizona, 1952, 1953; Ph.D., University of Illinois, 1955.
Burton W. Robinson Associate Professor of Clinical Psychology (1955)
B.S., M.S., Utah State University, 1951; Ph.D., Purdue University, 1954.

Donald W. Robinson Associate Professor of Mathematics (1956)
B.S., M.A., University of Utah, 1948, 1952; Ph.D., Case Institute of Technology, 1956. Clarence F. Robison ...... Assistant Professor of Physical and Health Education; Head Track Coach (1948) B.S., Brigham Young University, 1949; M.S., University of Michigan, 1954. Lewis M. Rogers Assistant Professor of Religion (1955)
B.S., Utah State University, 1943; M.A., Ph.D., University of Southern California,
1952, 1956. R. Max Rogers Professor of Modern Languages (1945)
B.A., M.A., Brigham Young University, 1940, 1942; Ph.D., Stanford University, 1951.

Ralph L. Rollins Associate Professor of Civil Engineering (1956)
B.S., M.S., Utah State University, 1941, 1949; Ph.D., Iowa State College, 1954.

Antone K. Romney Professor of Educational Psychology; Assistant B.S., M.S., Brigham Young University, 1933, 1934; Ed.D., Stanford University, 1947.

Richard Sagers Assistant Professor of Bacteriology (1958)
B.S., M.S., Brigham Young University, 1954, 1955; Ph.D., University of Illinois, 1958.

Clyde D. Sandgren General Counsel; Professor of Business Law
B.S., Brigham Young University, 1937; LL.B., St. John's University, 1939.

Lawrence W. Sardoni Associate Professor of Music (1945)
B.A., M.A., Brigham Young University, 1935, 1946.

Morris A. Shirts Assistant Professor B.A., M.A., Brigham Young University, 1935, 1946.

Morris A. Shirts — Assistant Professor of Education (1952)
B.A., M.A., Brigham Young University, 1947, 1950; Ed.D., Indiana University, 1952.

John M. Simonsen — Associate Professor of Mechanical Engineering (1954)
B.S.M.E., University of Utah, 1950; M.S.M.E., Ph.D., Purdue University, 1952, 1955.

Karl M. Skousen — Instructor in Accounting (1958)
B.S., M.S., Brigham Young University, 1944, 1957; C.P.A., Utah, 1957.

\*Lyman F. Smart — Assistant Professor of English (1953)
B.A., Idaho State College, 1950; M.A., University of New Mexico, 1952.

Jay M. Smith — Instructor in Accounting (1957) ...... Instructor in Accounting (1957) Jay M. Smith, Jr.

B.S., Brigham Young University, 1953; C.P.A., 1953. Richard L. Smith Professor of Business Management (1947)

B.A., University of Utah, 1946; M.B.A., Northwestern University, 1947; C.P.A.,

Illinois, 1947; C.P.A., Utah, 1948; D.C.S., Harvard Graduate School of Business

Administration, 1956; D.B.A., Indiana University, 1957. Robert J. Smith Professor of Accounting (1949)
B.S., Brigham Young University, 1948; M.B.A., Northwestern University, 1949;
C.P.A., Illinois, 1949; C.P.A., Utah, 1950; D.B.A., Indiana University, 1957.

Wilford E. Smith Associate Professor of Sociology (1948)
B.A., University of Utah, 1943; M.A., Brigham Young University, 1948; Ph.D., University of Washington, 1952. Assistant Professor of Chemistry (1957) Sidney B. Sperry ...... Professor of Old Testament Languages and

B.A., University of Utah, 1917; M.A., Ph.D., University of Chicago, 1926, 1931.

...... Associate Professor of Youth Leadership (1955)

B.A., M.A., Brigham Young University, 1937, 1938; Ph.D., Louisiana State University, 1941.

B. Swensen Professor of History (1933)
Brigham Young University, 1926; M.A., Ph.D., University of Chicago, 1931,

Albert D. Swensen

Russel B. Swensen ... 1934.

Wilmer W. Tanner .......... Associate Professor of Zoology and Entomology (1949) B.S., M.A., Brigham Young University, 1936, 1937; Ph.D., University of Kansas, 1949. Administration B.S., University of Utah, 1921; M.A., Columbia University, 1925; LL.D., Arizona State College, 1956. Weldon J. Taylor ...... Professor of Marketing; Dean, College of Business (1937) B.S., Brigham Young University, 1934; M.B.A., Harvard Graduate School of Business Administration, 1937; Ph.D., Graduate School of Business Administration, New York University, 1955. Robert K. Thomas .. . Assistant Professor of English (1951) B.A., Reed College, 1947; M.A., University of Oregon, 1949. Woodruff C. Thomson

B.A., M.A., University of Utah, 1938, 1949.

Lucile Markham Thorne ...... Assistant Professor of English (1950) B.A., M.Ed., Brigham Young University, 1929, 1956; M.S., University of Southern California, 1958. the College of Family Living (1958) B.A., Brigham Young University, 1942; M.D., University of Utah, 1945. B.S., M.S., Brigham Young University, 1938, 1948. L. Elliott Tuttle ...... S. Lyman Tyler ....... Associate Professor of History; Director of Libraries (1952) B.S., Ph.D., University of Utah, 1949, 1951. Clarence Tyndall Assistant Professor of Education (1946)
B.S., Brigham Young University, 1941; M.A., Stanford University, 1952.

Lee B. Valentine Assistant Professor of Modern Languages (1938)
B.A., M.A., Brigham Young University, 1939, 1948; Ph.D., Stanford University, 1958.

Leo P. Vernon Associate Professor of Chemistry (1954)
B.A., Brigham Young University, 1948; Ph.D., Iowa State College, 1951.

J. Hymer Wakefield Assistant Professor of Music (1949) Ray Watters Assistant Professor of Health Education (1957)

B.S., M.S., Utah State University, 1948, 1950.

Stanley H. Watts Associate Professor of Physical Education:

The Professor of Physical Education: Head Basketball Coach (1947) Brigham Young University, 1938. Assistant Professor of Music (1948) Newell B. Weight ..... B.A., M.A., Brigham Young University, 1938, 1946. Instructor in Music (1956) Kurt Weinzinger ..... Music Diplomas, Academy of Music and Arts, Vienna, Austria, 1951, 1953. B.A. Brigham Young University, 1940; M.A., University of Southern California, 1955. Dale H. West .....

B.S., M.S., Brigham Young University, 1951, 1958; C.P.A., Utah, 1953.

Ray T. Wilcox

B.S., M.Ed., Brigham Young University, 1951, 1954; Ed.D., University of California (Berkeley), 1957.

Warren B. Wilson Associate Professor of Art and Education (1954)
B.S., Utah State University, 1943; M.F.A., State University of Iowa, 1949.

John H. Wing Assistant Professor of Chemistry (1931)
B.S., M.S., Brigham Young University, 1926, 1934.

\*Glena D. Wood Instructor in English (1952)
B.A., Brigham Young University, 1936; M.A., Ph.D., University of Kentucky, 1949,

1958. ... Associate Professor of Speech (1954)

University of Illinois, 1954. Asahel D. Woodruff ...... Professor of Educational Psychology; Dean

of the College of Education (1949)

M.S., Brigham Young University, 1936, 1937; Ph.D., University of Chicago, Assistant Professor of Music (1955) Ralph Woodward

University of Idaho, 1940; M.M., Cincinnati Conservatory of Music, 1948. Professor of Educational Administration (1934)

David H. Yarn, Jr. ..... Associate Professor of Theology and Philosophy;

Note: Names of faculty members on leave are marked with asterisks (\*).

# General Information

At Brigham Young University all work beyond the baccalaureate degree is done in the Graduate School. The university offers a rich graduate program leading to master's degrees in nearly all academic departments, and to the doctorate in a substantial number of areas. In addition, numerous students having their bachelor's degrees register on a non-degree-seeking basis for a wide variety of courses in which they have a special interest, under the condition that these courses do not apply toward a higher degree.

# **Purpose**

The Graduate Division of Brigham Young University was established as an administrative unit in 1922, 47 years after the founding of the Brigham Young Academy in 1875. The objective of graduate study was then stated in these terms: "The essential aim . . . is to develop the power to do independent work and to encourage the spirit of research. Each candidate is expected to possess a broad general knowledge of his major subject with less detail in the case of his minor subjects."

Educational institutions such as Brigham Young University reflect the aspirations and problems of the American people. They carry the ideals, dreams, and hopes of democracy from generation to generation. Their ranks must be filled with men and women trained in the skills, the arts, and the sciences and dedicated to a higher spiritual understanding through which all men can work for

the common good.

# **Faculty**

The faculty of the Graduate School consists of those who hold the rank of professor or associate professor, assistant professor with a doctorate degree, and others approved by the Graduate Council. It is the responsibility of the graduate faculty to formulate and recommend requirements for all graduate degrees and to recommend regulations and facilities to promote the scholarly activities and research interests of graduate students.

# **Graduate Council**

The chief administrative body of the graduate faculty is the Graduate Council, which consists of (1) the academic vice-president of the University, the dean of the Graduate School, and the director of research, ex officio; (2) four members of the graduate faculty elected at large for terms of three years; (3) nine members of the graduate faculty, one elected from each of the nine colleges in which there are departments offering graduate work. The Graduate Council is empowered to act for the graduate faculty on all student petitions and on departmental requests for approval of faculty members for graduate instruction and supervision.

# Administration of the Graduate Program

Subject to review by the President, the administration of the graduate programs is vested in the graduate dean and the Graduate Council, which in turn delegates the operation of the specific program in any given area to the department involved.

# Admission to Graduate School

To be admitted to the Graduate School, a student must apply for admission to the University, unless he was in attendance the preceding quarter, and he also must apply for admission to the Graduate School. Normally, this must be done

at least two months before the beginning of the quarter in which he plans to begin his work. Students who do not have their applications filed by this date cannot be assured that their applications will be acted upon by the time school opens. Blanks for both types of admission are obtainable from and should be filed with the office of the Graduate School. Along with the application, the student must furnish evidence of having received a bachelor's degree or its equivalent from an accredited university, and provide transcripts of all his preceding college work, if that work was taken at other universities. Students who do not plan to work for advanced degrees need supply only one copy of a transcript of their undergraduate work, but those students who intend to work for higher degrees must supply two copies, and must have achieved at least a "B" average in the last two years of college work.

Admission to the University is by registration permit issued by the University Admissions Office. Admission to the Graduate School, an additional step, is completed when the student is notified by the graduate dean that his application for admission has been approved. This permits the student to take any course for which he is qualified, with the understanding that this work will not apply toward a higher degree unless approved by the chairman of his advisory committee and that he be accepted on a degree-seeking basis within the time limit

prescribed for the degree for which he intends to work.

Foreign students especially are urged to correspond with the head of the department concerned to ascertain whether their preparatory work will be acceptable to the department and to the Office of Admissions, and are cautioned that adequate command of the English language is indispensable to successful graduate work.

A student whose native language is not English must include with his application for admission a statement from a responsible official that the applicant knows how to read, write, speak, and understand the English language sufficiently well to be able to pursue a satisfactory program of study in the Graduate School.

# Procedure for Master's Degree

Preliminary to admission to degree-seeking status the applicant must present three letters of recommendation on forms provided by the Graduate School, one of which should be a character reference, and two must be from persons qualified to evaluate his academic work. These documents, together with the application and transcripts previously submitted, will be referred for evaluation to the department in which the student intends to major. The department may require additional documents, aptitude or achievement tests, or remedial course work, as a condition of admission. Such supplementary work may be taken in the university after registration for graduate study. Admission must be completed before the student registers for the last thirty hours of credit intended to apply on the degree.

# Procedure for Doctor of Philosophy Degree

Admission to Degree-Seeking Status. A student desiring to work toward the doctorate must supply three letters of recommendation on prescribed forms, one a character reference, and two from persons qualified to evaluate his academic work. All documents relating to the student's qualifications and accomplishments will be referred to the department in which the student plans to major. The department may require additional evidence concerning the applicant's ability to pursue doctoral work, and may prescribe examinations, remedial work, or other requirements as a basis for its decision relative to the candidate's fitness for admission on a degree-seeking basis.

To be admitted on a degree-seeking basis for the doctorate, a student must have demonstrated high quality scholarship, capacity for research or creativity, broad educational interests, facility in written and oral expression, and appropriate

professional objectives.

The student has the responsibility of filing with the dean of the Graduate School a statement from his advisory committee, signed by the chairman of his

major department, that all departmental conditions for admission have been met and that his program of doctoral studies has been approved. Notice by the gradulate dean then admits the student on a degree-seeking basis for the doctorate. Such admission must be at least five quarters before the student is awarded the degree.

Comprehensive Examination. The candidate must pass a comprehensive examination on his doctoral fields under the direction of his advisory committee.

This examination will normally be given at the end of the second year of study.

This examination will normally be given at the end of the second year of study.

Admission to Candidacy. The student is admitted to candidacy for the degree by the dean of the Graduate School after the dean receives the recommendation of the advisory committee. This will normally be done after the completion of two years of graduate work. Satisfactory passing of the comprehensive examination and fulfillment of the language requirements is necessary for admission to candidacy.

# General Requirements for Advanced Degrees

Advisory Committee. The student's program and his thesis or dissertation are developed under the direction and supervision of an advisory committee. The advisory committee for a student working toward the master's degree consists of two members, and for a student working for the doctorate it consists of at least three members. These members are nominated by the student from his major and minor fields and appointed by the head of the department in which the student is to do his graduate work, with the approval of the graduate dean. The chairman of the advisory committee must always be a representative of the major field. It is the duty of this committee to advise the student in his proposed program, to approve his registration, and to direct his research and the work on his thesis or dissertation. As soon as the student's complete program is determined, each member of the advisory committee should be supplied by the student with a copy of the program and a copy approved by the committee must be filed by the student in the Graduate Office.

The membership of the advisory committee may be changed with the approval of all members of the newly constituted committee, the chairman of the major department, and the dean of the Graduate School. After such a change the

student reviews his entire program with the new committee.

English 99. Students whose ability to write clearly and correctly is not deemed satisfactory by the department involved are required to enroll in English 99, a non-credit course, Problems in Thesis Writing. The course is equivalent to two credit hours and is regarded as part of the student's registration for that amount. It should be taken at the earliest possible time.

Student Load. A normal load is considered to be from 12 to 16 hours. Teaching assistants and others employed approximately one-half time should limit their loads to not more than 12 quarter hours, and full-time employees to not more than 5 hours. Experience has shown that because of the intense character of graduate work and the academic grade-point average required, it is usually advisable for graduate students to limit their programs to something less than the maximum permitted when employed on a full or part-time basis.

Graduate Credit for Seniors. If during the last quarter of the senior year, a candidate for a baccalaureate degree finds it possible to complete all requirements for such a degree with a registration of fewer than sixteen quarter hours of undergraduate credit, he may register for graduate credit to the extent that the total registration shall not exceed sixteen quarter hours during the quarter. Written verification that all requirements have been met must be obtained from the appropriate undergraduate dean and presented to the dean of the Graduate School prior to such registration, but this registration does not constitute admission to the Graduate School.

Final Oral Examinations. The passing of a final oral examination not fewer than fifteen days prior to graduation is required. It is the duty of the student to schedule the final examination after obtaining from the chairman of the major department the names of the examining committee. Forms are available for this purpose.

The examination is conducted by a committee of five voting members, to be made up of the members of the advisory committee and others appointed by he chairman of the major department. The chairman of the advisory committee s in charge of the examination. Four affirmative votes are needed to pass. Other nembers of the graduate faculty may attend the examination and enter the liscussion, but they may not vote.

Application for Graduation. A candidate for graduation in June must submit application for graduation and pay the graduation fee not later than the preceding January 15, and a candidate for graduation in August should normally

submit his application and pay the graduate fee by March 15.

Approval for Graduation. Securing approval for graduation and permission o schedule the final examination is the responsibility of the candidate. At the ime of registration for courses that will complete all credit requirements for the degree, the student must file with the Graduate Office, on a form provided, a request for such approval. The final examination is not scheduled until this is

# Special Requirements for Master's Degree

Master of Science Degree. The Master of Science degree is awarded upon

completion of the requirements listed above.

Master of Arts Degree. The Master of Arts Degree is awarded upon completion of the requirements listed above, plus completion of the foreign language re-

quirement for the Bachelor of Arts degree.

Master of Education Degree. The Master of Education degree is awarded upon completion of the requirements for the Master of Science degree, with the following exceptions: (1) a satisfactory field project (course 698) may be substituted for the thesis, and (2) a total of 45 hours credit shall be presented in ad-

dition to the field project.

The project shall be a study of a practical problem in the field of the candidate's interest as a teacher. The problem is selected and developed by the student, subject to the approval of his advisory committee. A prospectus must be filed in the office of the Graduate School at the time of registration for the project. The finished report on the project shall conform to the requirements for a thesis in matters of style, format, and manner of filing. It is recommended that a candidate complete not less than one year as a teacher before beginning the field project.

Amount and Distribution of Credit. The master's degree requires the comple-Amount and distribution of credit. The master's degree requires the completion of 45 or more quarter hours of credit, at least 30 hours of which must be approved by the advisory committee prior to registration. At least 30 hours of graduate work must be in the 500 series or above. Courses in the 300 and 400 series may apply toward the remainder of the required credit but only if approved prior to registration by starring and initialing on the registration form by the student's advisory committee or department chairman in cases where an advisory committee has not been appointed.

At least 23 of the hours must be in the major field and at least 15 in a minor

At least 23 of the hours must be in the major field and at least 15 in a minor field. At least three-fourths of all work applying on the degree, including all work in the 300 and 400 series, must be of grade "B" or better; none of the remainder may be of a grade lower than "C." The average grade of all work applying toward the master's degree must be at least "B." At least 15 hours in the major field and 10 hours in the minor field must consist of courses for which there is a systematic body of subject matter identified with a given course number such as ordinarily constitutes a formal course or seminar. Individual reading and special problems may not be included in these totals.

Transfer Credit. Graduate work up to 15 quarter hours may be transferred from other institutions upon the approval of the student's advisory committee and the Graduate Council. Forms for petitioning for such transfers are available in the office of the Graduate School. Credit transferred must represent work which is a fair and reasonable equivalent of corresponding work in this University. All transferred credit must be of grade "B" or better.

Conditions for the Application of Credit Toward a Master's Degree. Of the 45 quarter hours required for the master's degree, at least 30 quarter hours of

approved courses must be taken on the campus of Brigham Young University, and must be taken by the candidate after his advisory committee has been

formed. No correspondence credit is applicable toward a master's degree.

Master's Thesis. The prospective candidate for the master's degree enrolls for a thesis (course 699) in his major department, preferably two quarters before the scheduled completion of his program. A student whose major is music theory, theatre and dramatic art, painting and sculpture, or design, may substitute for the thesis requirement a piece of creative work. At the beginning of his research or creative work the student must provide the chairman of his advisory committee with an outline or prospectus and secure approval on a form provided by the Graduate School. He is required to complete at least one full quarter of study after the date on which the form and prospectus are delivered to the Graduate Office. A complete, signed, but unbound copy of the thesis must be on file in the office of the Graduate School and with the chairman of his advisory committee fifteen days prior to the final examination and not later than thirty days before graduation. Up to six hours of credit may be recorded when the thesis is completed and accepted. Four copies of the thesis must be submitted.

Each candidate is required to furnish six abstracts of his master's thesis, one abstract to accompany each copy of the thesis and two extra copies. (A seventh copy of the abstract is required for theses in Education.) The abstract is to have a maximum length of 600 words and should be bound with the thesis, following

the bibliography.

Time Limit. All requirements for the master's degree must be completed within six years from the date when the student registers for the first graduate work which is applied toward the degree.

# Special Requirements for the Doctor of Philosophy Degree

The Doctor of Philosophy degree is awarded for distinguished attainment in a recognized field of learning, not merely for the completion of courses of study. The university offers the Doctor of Philosophy degree in the fields of chemistry, geology, history, human development and family relationships, musicology, physics, clinical psychology, general psychology, history and philosophy of religion, Bible and modern scripture, and sociology.

Academic Requirements. The student must select a major field of study and at least one minor field approved by the department chairman and the dean of the Graduate School. Specific requirements in these fields are described by the

departments.

The equivalent of at least three years of full-time study is required, at least two of which, including the last, must usually be at Brigham Young University. Full-time study is defined as at least twelve hours in course work or the equivalent in research per quarter. The advisory committee has authority to decide what work will be accepted to meet these requirements, and may accept or require up to two years of full-time study elsewhere.

Language Requirement. Before completing his comprehensive examinations, the student must present satisfactory evidence of proficiency in two foreign languages, one of which must be French or German, chosen in consultation with the

advisory committee.

The language examination is administered by the Language Department in agreement with the department in which the student is majoring. If the student is not prepared to pass examinations in both languages at entrance, on his application for admission he must satisfy the dean that he is taking the necessary steps to do so promptly.

Dissertation. The candidate is required to present an acceptable dissertation based upon his own research. Four typewritten copies must be filed in the office of the Graduate School at least fifteen days prior to the final examination. At the same time, seven copies of an approved abstract of not more than 600 words must be submitted. The student is also required either to furnish the university with fifteen reprints of his dissertation or to arrange for its microfilming.

Final Examination. Not later than fifteen days before graduation, the student must pass a final examination given by a committee of not fewer than five

members. The committee consists of the advisory committee plus such other members as the dean of the Graduate School shall designate.

**Departmental Requirements.** A statement of special requirements for the doctorate is found in this catalog under the name of the major department.

Time Limit. All requirements for the Doctor of Philosophy degree must be completed within nine years of the date on which the student applies for admission to degree-seeking status for that degree. In order for credit which exceeds this time limit to apply on the degree such credit must be validated by special examination.

# Special Requirements for the Doctor of Education Degree

Admission to Degree-Seeking Status. In addition to the requirements stated elsewhere, the applicant must possess certification as a teacher, must have completed two years of practical experience in education, and must possess demonstrable acquaintance with the field of education. His competence will be ascertained by a qualifying examination covering work equivalent to thirty hours of credit. There is no special requirement as to how the student should obtain this background. The examination will be given soon after the student is admitted.

Advisement. The early advisement of the student, until he has passed the qualifying examination, will be supervised by the graduate committee of his college, which will assign him a specific adviser in his major field. When the student successfully passes the qualifying examination, he will be given an advisory committee of at least four members. They are to be nominated by the student to his adviser, who in turn recommends the committee membership to the graduate committee of the college. The graduate committee then forwards its recommendation to the dean of the Graduate School who grants final approval. The chairman must be in the student's major field, and there must be one member from each of his supporting fields. The chairman of the major department shall be a member ex officio.

Academic Requirements. The student must meet the departmental requirements of his chosen major field and the requirements established within his department and college in three supporting fields. He will be required to complete the equivalent of at least three years of full-time study, of which one must consist of three consecutive quarters on the campus of the university. He must take one three-hour seminar during each of these quarters. Work accepted from another institution must be approved by the advisory committee and the Graduate Council.

The candidate must demonstrate proficiency in statistics to the satisfaction of the advisory committee.

Field Project and Report. A field project for the improvement of a program of administration or instruction must be carried out under the direction of the student's advisory committee, after he has passed the comprehensive examination. The report of the field study must meet the same standards of format as the Ph.D. dissertation, and be submitted under the same schedule and requirements regarding publication.

Comprehensive Examination and Admission to Candidacy. A comprehensive examination on the formal academic work will be given after completion of about two years of study. The student will be recommended to the dean of the Graduate School for admission to candidacy when he passes this examination.

Final Examination. Not later than 15 days before graduation, the student must pass a final examination on the field project and related matters. The examining committee will consist of his advisory committee, and such others as the department chairman and dean of the Graduate School may designate.

Time Limit. All work for the degree must be completed within nine years of the date on which the student applies for admission to degree-seeking status for that degree. In order for credit which exceeds this time limit to apply on the degree, such credit must be validated by special examination.

# Scholarships, Assistantships and Fellowships

Fellowships and Scholarships. The university has established the following fellowships and scholarships for graduate students:

27 fellowships which provide for free tuition and remission of fees plus \$1,000. 30 scholarships which provide for free tuition and remission of fees plus \$300

to \$750.

These scholarships and fellowships are awarded on the basis of high academic achievement and are available to students in all areas of graduate study. Recipients must possess a baccalaureate degree at the beginning of the period for which the scholarship or fellowship is granted and be candidates for a higher degree. Applications for the academic year beginning in September should be filed by the preceding March 1. Application forms may be obtained from the office of the Committee on Scholarships and Fellowships.

Teaching and Laboratory Assistantships. Many departments employ graduate students as teaching or laboratory assistants. Assistantships are awarded on the basis of scholastic accomplishment and competence for service. Remuneration is based on the time which is devoted to teaching duties. The stipends vary from \$750 to \$1,800 per year, not including tuition and fees. Application forms and detailed information may be obtained by writing to the chairman of the department in which the applicant wishes to become an assistant.

Research Assistantships and Fellowships. A substantial number of research assistantships and fellowships are available at Brigham Young University. Recipients work part time under the supervision of a faculty member on research projects which are supported by university, government, or private sources. The awards vary from \$1,200 to \$2,500 per school year, depending upon the type of research and the amount of time devoted to it. Students interested in appointments to research assistantships or fellowships should direct inquiries to the director of research or to the chairman of the major department.

### **Summer Sessions**

Graduate students who do a part of their work at the university during the summer will find a wide range of graduate courses suited to their purposes. A full quarter of work is offered in the summer school, which is divided into two terms so that students may attend only part of the summer if they desire. Graduate students may register for a maximum of nine credit hours per term.

# **Library Facilities**

In relation to present size, the Brigham Young University has one of the ten fastest growing university libraries in the United States. With the growth in the number of volumes an effort is being made to acquire those library tools necessary to a graduate research program. A well trained staff is available to assist scholars in the use of the book collection, and to interpret the specialized bibliographies, catalogs, guides, and indexes.

The Heber J. Grant Library contains the general book collection including over 250,000 bound volumes, several thousand pamphlets, and an extensive collection of titles on microfilm and microcards. Over 3,000 periodicals are re-

ceived regularly.

Special Libraries. The library for Physical Sciences and Engineering is on the main floor, of the Carl F. Eyring Science Center. The Life Sciences Library—including Biological and Agricultural Sciences, Nursing and Home Economics—is in the west basement of the Family Living Center. The Phonograph Record Library is in Room 3263 of the Family Living Center.

The facilities of the LDS Genealogical and Historical Library in Salt Lake

The facilities of the LDS Genealogical and Historical Library in Salt Lake City, which contains over 500,000 titles, are also available by special arrangement, as are collections of Utah and Mormon materials in the LDS Church Li-

brary in the same city.

# University Fees

(All fees are subject to change without notice)

#### General Fees

#### REGULAR COLLEGE AND GRADUATE STUDENTS:

Tuition	Autumn Quarter .\$60.00	Winter Quarter \$60.00	Spring Quarter \$60.00	<b>Total</b> \$180.00
Building, gymnasium, student activity and health fees	. 25.00	25.00	25.00	75.00
	\$85.00	\$85.00	\$85.00	\$255.00

# GENERAL FEES ACCORDING TO QUARTER CREDIT HOURS CARRIED BY SPECIAL, REGULAR, OR GRADUATE STUDENTS:

Total
\$ 18.00
24.00
30.00
36.00
42.00
48.00
54.00
60.00
85.00

The charge for auditing courses is the same as for taking them for credit.

#### PAYMENT OF FEES

A student may pay tuition and fees in full at the time of registration,

A student may pay tuition deposit of \$10 and activity fees of \$15, totaling \$25, at the time of registration, then pay the balance of tuition and fees due by the 10th school day of the quarter. (Special students carrying nine (9) hours or less are not required to pay the \$15 activity fee.)

The \$10 tuition deposit is not refundable in the event a student does not

complete registration or attend school.

#### LATE REGISTRATION FEE

Late registration fees will be assessed all regular and part-time students for the following reasons (no exception is made regardless of reason for being late):

(a) Failure to complete registration on the scheduled dates:

- - 2. Failure to pay full tuition and fees by the 15th school day will result in cancellation of a student's registration.

Late fees for special students will be assessed at 50% of the rate for regular students.

Students who pay only part of the total tuition and fees will be assessed a late fee if the balance is not paid by the due date.

Any student whose check is dishonored by his bank will be charged the late

fee in effect at the time the check is redeemed.

The maximum charge for both late registration and late payment of fees is \$20.

#### MISCELLANEOUS GENERAL FEES AND FINES

Graduation fee, master's degree (includes printing of thesis abstract) Late application for graduation fee (for those who apply after January 15 for June Commencement and after March 15 for August Com-	20.00
mencement)	3.00
Registration for graduation fee (for those not previously registered in	0 = 0
the year in which graduated)	2.50
Identification Photo	.50
Change of registration fee, for each change slip presented after the first	
week of each quarter	1.00
Examination, special equivalency, per credit hour (the maximum fee in	
any one subject shall not exceed \$40)	5.00
Duplicate activity card	1.00
Automobile registration and parking fee:	
Beginning of school year	5.00
Beginning of Winter Quarter	4.00
Beginning of Spring Quarter	2.00
Traffic violation fines	
Thesis binding (4 copies)	
Registration in Evening School. (All daytime students will be required to an additional fee of \$2 per credit hour for all hours carried under Evening School Program.)	

#### FEES FOR INSTRUCTION IN MUSIC AND SPEECH

For fees for special private instruction in music and speech see the General Catalog.

#### RENTALS

Woodwind, brass, and string instrument rental per instrument, per quarter	\$ 8.00
Harp, harpsichord, organ rental, one hour each day, per quarter	
Piano rental, one hour each day, per quarter	5.00
Each additional hour per day, per quarter	
Practice room without a piano, one hour each day, per quarter	
	2.00
Each additional hour per day, per quarter	2.00
Locker rent (McKay Building and Eyring Science Center):	
1 quarter	1,00
3 quarters	2.50
-	3.00
4 quarters	
Key deposit	1.00
Replacement of lost key	1.00
replacement of less key	

#### DEPOSITS

DEPOSITS	
Gymnasium towel check and padlock deposit (Maximum refund is \$2.50) \$	3.00
Botany 550 (Plant Physiology)	2.00
Botany 706 (Experimental Ecology)	2.00
Botany 712 (Plant Nutrition)	2.00
Chemistry (each laboratory class)	1.00

# Student Personnel Services

The Student Personnel Services are responsible for the welfare of students in the following areas of university life:

Academic Standards Counseling Service Financial Aids Foreign Students Health Services Indian Students Information Center Orientation Scheduling Scholarships, Fellowships, and
Academic Grants
Security and Traffic
Student Employment and
Placement
Student Housing
Student Organizations and
Social Life
Student Publications
Women's Activities

### **Dean of Students**

The dean of students is director of the Student Personnel Services. As such, he is expected to coordinate the agencies at work on student problems. He initiates and recommends to the president and the University Council needed policies and procedures in student life. It is his responsibility to administer the program recommended or approved by the president in the various areas of Student Personnel Services.

# **Counseling Service**

The administrative officers at Brigham Young University are well aware that students are faced with many problems in college life. The Counseling Service has been established to meet the needs of students in making and maintaining a satisfactory adjustment while here. The primary function of the Counseling Service is to help "normal" students to make realistic decisions regarding their college careers. The Counseling Service provides the following services for the university: (1) Counseling—educational, vocational, and other personal problems, (2) psychiatric, (3) testing, (4) occupational information, and (5) help with study skills. The Counseling Service also coordinates the University Tutoring Program.

The counselors offer assistance to each individual student, helping him to make wise decisions in connection with educational, vocational, and personal problems. Such decisions are fundamental to psychological and sociological growth. The mature student will accept responsibility for the decisions arrived at in such counseling sessions.

Limited psychiatric service is available for students with serious emotional problems. A psychiatric team composed of a psychiatrist, clinical psychologist, and a psychiatric social worker is available to make evaluations and recommendations concerning treatment. Limited psychiatric treatment is available for students who can be treated in a university setting. Such treatment is not available for all students, and referrals are often made to private agencies either in Utah or in the student's home town. As in the case of all other counseling done in the Counseling Service, complete confidentiality is maintained.

Tests of achievement, ability, interest, and adjustment are given to all new lower division students. The data from these tests are used as a basis for counseling in educational, occupational, and personal problems. Although the basic tests are given to all new lower division students, upper division and graduate students may avail themselves of the tests. The testing service provides psychological test data for the use of counselors and registration advisers, placement tests for various academic groups at the university, and assistance in the preparation, administration, and scoring of subject-matter tests requested by various departments in the university.

A comprehensive, current coverage of essential occupational information is maintained in the Counseling Service Library. Current catalogs of the major universities and technical schools are also on file. These materials are available to all students seeking information about particular vocational opportunities or

information about the world of work in general.

A study skills laboratory is maintained for use of all students in the improvement of their study habits. Remedial reading groups are formed each quarter to give assistance to students who have difficulty reading college materials. Emphasis in the reading groups is placed on improving the student's general reading ability, not on speed alone. Application for membership in these groups is initiated by contacting the Counseling Service receptionist. Reading materials and equipment are also available to help the student increase his ability to read.

### Counselor for Women

Of special assistance to women students is a counselor for women. She is a member of the Student Personnel Services staff, the Committee on Women's Affairs, and the Counseling Service staff. The counselor for women is available throughout each day to assist women students in solving personal problems.

# Foreign Students Adviser

Services of the foreign students adviser are available to all students from countries outside of the United States. All alien students are expected to clear with him. Foreign students coming to the university should report first to Room 216, Temporary Office Building No. 2, the office of the adviser to foreign students.

# Veterans' Benefits

Veterans transferring their G.I. benefits from other schools to B.Y.U. must bring a certificate of eligibility restricted to B.Y.U. This must be obtained by application to the last school attended. New veterans must make an application for eligibility. War orphan veterans should apply at the Veterans' Administration Office in their home state. Veterans of the Korean War may make their first application upon their arrival at the university by presenting their discharge form, DD-214. Veterans of the Korean War must begin use of their G. I. benefits within three years of their date of discharge. After this date they cannot suspend training for a full calendar year at any one time without receiving special clearance. Inquiries should be directed to the veterans' coordinator, Brigham Young University, Provo, Utah.

# Discipline

The maintenance of standards of honor and integrity, of graciousness in personal behavior, of Christian ideals in everyday living, of a high standard of morality, and of abstinence from alcohol and tobacco is required of every student. A student's having improper associates or visiting places of questionable repute will not be tolerated.

Any pronouncement of disciplinary measures made by the President of the university becomes a part of these regulations. Violations of regulations may

make the offender liable to suspension or expulsion from the university.

# Placement Bureau

The Placement Bureau, located in the east end of the Herald R. Clark Student Service Center, exists on the campus for the purpose of assisting graduating students and alumni to find desirable positions in their fields in business, industry government, and education. This office works in close cooperation with deans and department chairmen.

The placement service includes a placement library where interested students may find books, articles, magazines, and brochures that will acquaint them with companies in which they may be interested and also books and pamphlets which will give advice on such matters as how to conduct oneself in an interview, how to write effective letters of application, how to find employment, etc.

All students are urged to register with the Placement Bureau early in the school year in which they will graduate so that that office may prepare early to give the most effective possible assistance in finding employment for each graduate.

# Student Employment

In the Placement Bureau assistance is given to students in finding part-time employment. This includes help not only in placing students in positions on the university campus but also in finding part-time employment off-campus and in finding work for board and room.

Students are encouraged not to attempt to earn their entire way through school. Such a program leaves little time for academic work (See Scholarships). It is important to note that there is a maximum limit on the number of hours which a student may work on-campus.

Students are urged to register with the Placement Bureau as soon as possible after they arrive in Provo and are available for work. Factors which weigh most heavily in deciding who shall receive leads for jobs are need, hours available, and possession of skills required by employers. Inasmuch as the number of students seeking part-time work is very high, those whose need is great are requested to report regularly at the Placement Bureau after filing their initial applications.

Students from foreign countries are required to obtain a work permit before they may take employment. Such students may receive assistance in obtaining the necessary permit from the foreign students adviser. Students under eighteen who succeed in locating employment are required to obtain a work permit, instructions for which are available in the Placement Bureau.

# Student Health Service

The new Howard S. McDonald Student Health Center on University Hill accommodates the health services, comprised of a large out-patient clinic and a small in-patient unit for cases requiring bed care. The center functions 24 hours daily, 7 days a week during school terms and is available to any regularly enrolled full-time or part-time student whose fees include the services for the quarter in which he is registered. Summer students are included. Medical care to all eligible students is limited to the facilities and personnel in the health center.

The following services are provided without extra charge:

- 1. An initial complete physical examination, required of all entering students, to be performed at the health center and to include screening chest X-ray, audiometry and urinalysis. This examination is also mandatory for students reentering after a two-year absence.
- 2. Consultation with general physicians and specialists, by appointment, in the health center during regular clinic hours, 8:30 a.m. to 4:30 p.m. This includes a specialty clinic in orthopedics, general surgery, gynecology, internal medicine, and chiropody.
  - 3. First aid treatment any time during the twenty-four hours of each day.
  - 4. Immunizations as required for smallpox, diphtheria, or typhoid.
  - 5. Physical therapy as recommended by a health center physician.
  - 6. Routine laboratory tests.
- 7. Seven days of bed care in any one quarter in the health center, as recommended by a health center physician, after which a minimum charge of \$2.50 per day will be made. This includes post-surgical convalescence, the private physician continuing in attendance.

- 8. Immediate notification of parents or guardian by the health center when a student is taken acutely ill.
- 9. Certain procedures of public health importance, such as tuberculin tests, follow-up studies in infectious diseases, etc.
- 10. Within the limits of its personnel and facilities, and at the discretion of the director, the treatment of chronic disease suffered by students.

Some services require an additional charge and are supplied to the student at cost. These are:

- 1. Meals while a patient is in the center.
- 2. Drugs on prescription of a health center physician.
- 3. Special diagnostic laboratory tests.
- 4. Special immunizations, i.e. Poliomyelitis, influenza, etc.
- 5. X-rays other than "screening" films. The health center regularly employs the technical personnel to take and interpret the X-ray films. The student pays only the cost of materials.
- 6. After-hour calls by a physician either in the clinic or at home. The student pays \$2.00, the health center \$3.00 for each call.
  - 7. Rental of crutches.

#### Services not available:

- 1. Major surgery or off-campus hospitalization, except in instances where an injury is sustained while the student is representing the University through official assignment.
  - 2. Dental service.
  - 3. Obstetric services.
  - 4. Eye refractions, glasses, prostheses, hearing aids, etc.
  - 5. Ambulance service.

# Student Blue Cross-Blue Shield Program

To complement the services of the Student Health Center, Blue Cross-Blue Shield Hospital, Medical and Surgical protection is now available to all full-time students on a quarterly basis. This voluntary program is fully endorsed by the university and provides for a wide range of medical services at minimal costs. All students not otherwise protected by a health insurance plan are urged to accept this excellent plan specifically designed for our students. Full details are available from the Health Center.

# Security and Traffic

The Security Office is a protective agency for students, faculty and staff. Any questions concerning security or requiring police action should be referred here.

This office also maintains a lost and found service. Items of value found on campus should be deposited here at once. Unclaimed property will be held six months only.

A major responsibility of the Security Office is the directing of campus traffic and parking. Students, faculty, and staff are required to register their motor vehicles at the time of registration or employment at the University. Any change in ownership or registration must be reported to the Security Office within fortyeight hours. All vehicles must display a registration or parking permit. Vehicles

parked on campus between 7:00 a.m. and 5:00 p.m. when school is in session must display a parking permit. Student parking fee is \$5.00 per year.

# **Student Organizations**

Student activities are organized in such a way as to offer maximum opportunity for training in leadership and self-government and to provide a well-balanced program of individual and group development. Numerous student organizations have been set up to realize effectively such an objective. All student organizations on the campus conduct their affairs in accordance with a basic philosophy designed "to provide for a broad program of social, cultural, and recreational opportunities in which students are encouraged to participate." Membership is open to students who qualify and remain qualified according to the rules and regulations set up by each organization. All students are urged to become affiliated with some group and thereby derive the benefits that only group experiences can bring. In order to coordinate organizational activity, to eliminate duplication of effort, and to lend continuity from year to year, supervision of student organizations is provided by the dean of students through the office of the coordinator of student organizations.

Associated Students. This organization is composed of all students who attend Brigham Young University and is presided over by officers elected by them. It seeks to develop interest on the part of every student in those activities which contribute to a more democratic "Y" spirit and to provide opportunities for all students to participate in a well-rounded program of out-of-class activities. However, no student is allowed to participate in out-of-class activity if he is either on academic or disciplinary probation or carrying less than a ten-hour academic class load. Through this organization, student traditions are kept alive, and all interclass and intercollegiate activities are encouraged and unified. Social, forensic, dramatic, and musical activities are fostered under its management, and through it the students publish the Daily Universe, the Wye Magazine, the student directory, and the Banyan. The organization also functions as an auxiliary of university discipline through the activities of the Honor Council and the Inter-Organizational Council court system.

Associated Men. All men students registered are members of the Associated Men. This organization is designed to promote specific interests of "Y" men and to foster a wholesome atmosphere on the campus. The Executive Council, consisting of three student leaders and a faculty counselor, supplemented by the twelve members of the "Y" Men's Council, forms the governing group.

Associated Women. This is an organization comprising all women registered in the university. Its purpose is to aid and foster all women's activities. The organization, advised by the counselor for women, is a member of the Western Division of the National Organization of Associated Women Students, which includes most of the universities and colleges in the United States.

Class Organizations. Members of the four classes and the Graduate School are organized for the purpose of developing common interests and class spirit as the class proceeds through the University and into the Alumni Association. Meetings of the classes are held periodically with a limited number of social functions planned by class officers.

**Executive Council.** This council consists of the president, vice-president of social activities, vice-president of student relations, vice-president of cultural activities, and vice-president of finance.

Student Senate. This is a legislative body consisting of representatives from the entire student body and representatives from the classes. The senate considers student body problems and initiates action for the welfare of the student body.

Inter-Organization Council. This is an organization composed of representatives from student organizations to help govern organization activities. It derives its authority from the Executive Council.

Honor Council. This is a group of sixteen students appointed by the student senate and functioning as a counseling body with sub-committees to promote the honor system, to which all students are expected to adhere.

# **Professional and Departmental Organizations**

The university encourages organizations which have the specific purpose of bringing together persons of similar scholastic and professional interests and of rendering their work more pleasurable and profitable. Each group fosters the activities of the department to which it is allied. Eligibility requirements are those of departmental affiliation and general scholarship as determined by the individual organizations. Fees are reduced to a minimum. Each organization has a faculty sponsor.

# Geographical Organizations

Geographical clubs are organized to further social enjoyment and acquaintance among students from the same localities. They are particularly helpful to students during the early quarters of school, before these students have found their way into the other social activities of the campus. Such clubs are also helpful in maintaining a close bond of interest between the student and his home.

# **Religious Opportunities**

Brigham Young University students have excellent opportunities for participation in religious activities. Among the means available are the following:

Brigham Young University Stake. This stake of twenty-four wards, organized specifically for students, provides maximum opportunity for active participation in the program of the Church. Spiritual growth and the development of a strong testimony are goals fostered by the stake organization, whose program is closely integrated at all levels with that of the University.

All single students living away from home establish their membership records in one of the wards of the Stake. Married students who attend the University may elect to have their membership records either in a ward of the B.Y.U. Stake or in a nearby ward in which they reside. Membership records of students remain in the B.Y.U. Stake until they terminate their schooling at the "Y."

Religious Organizations. In addition to the twenty-four wards on campus, there are several organizations which are primarily religious in nature but which are also social and service groups. Membership in some of these organizations is limited to returned missionaries while others are open to any interested student.

**Devotional Assemblies.** Weekly devotional assemblies at 9:00 a.m. on Wednesday enable students to hear messages of spiritual power and depth from carefully chosen church leaders.

# Student Assemblies

The Friday assembly hour, at 9 a.m., conducted by the studentbody officers, provides excellent student entertainment and is an important part of student life.

# Lyceums and Forums

Almost since its founding Brigham Young University has been bringing to its students distinguished men and women in arts and letters. The Lyceums are evening programs of cultural value. Forum Assemblies, held each Monday morning, feature speakers and artists who can offer students a better understanding of our contemporary civilization. During the 1958 Summer Quarter and the 1958-59 season, the following have appeared or are scheduled to appear on the Lyceum or the Forum series:

Jacques Abram	Pianist
Nadine Conner	Metropolitan Opera Soprano
Norman Cousins	
Senator Everett Dirksen (Illinois)	Lecturer
Henry Aldous Dixon, M.C. (Utah)	
James T. Farrell	Novelist, Critic
Austin E. Fife (summer)	·
Morris Goldstein	Jewish Rabbi
Felix Greene	Lecturer
Joel H. Hildebrand	Author, Scientist
James B. Kelley	
Howard E. Kershner	Lecturer
I. M. Levitt	Astronomer
F. C. Lindvall	Scientist
Shane McCarthy	Lecturer
Effie Mona Mack, 2 lectures	Historian, Lecturer
Nila Magidoff	Lecturer
George Mardikian	Lecturer
Norman Nadel	Theater Critic
Richard M. Nixon	Vice President of the United States
Alton Ochsner, M.D.	Lecturer
Harry A. and Bonaro Overstreet (summer	) Lecturers
Paganini Quartet (summer) 10 concerts, He Foidart, Lucien Laporte	
C. Northcote Parkinson	Lecturer
N. A. Pederson (summer)	Lecturer
Carl Sandburg	Author, Poet
Daniel Schorr	Foreign Correspondent
Brig. General Robert L. Scott, Jr	Author, Lecturer
Donald Sloan	Lecturer
Senator George Smathers (Florida)	Lecturer
Robert Aura Smith	
T. V. Smith	Author, Philosopher

Utah Symphony Orchestra, 2 concerts

## Auxiliary Services

The University has a number of business units which operate as part of the services provided for students and faculty. As a matter of general policy, these business units operate on a self-sustaining basis. They include functions such as housing, feeding, printing, motion picture production, purchasing, warehousing, receiving, mail service, creamery products, laundering, book store, and farm management.

## Student Housing

It is not advisable for students to arrive in Provo before the date of the opening of the residence halls. The halls open September 19, two days before freshman orientation. Temporary accommodations in the city are crowded and unsatisfactory, and it is unwise for students to live in hotels and motels where there is no university supervision. Students coming before September 19 expecting to have a place to stay are disappointed when they have to make temporary arrangements, for this involves a double move of their belongings.

Listings are available for all university approved off-campus housing accommodations and a place can be found in a comparatively short time for students who do not have campus housing accommodations. Very little time is required for a student to unpack and get settled, whether it be on or off campus.

All students at the university are required, as a condition of enrollment, to live in university-approved housing, whether it be on or off campus. The Office of Student Housing, established to assist students with their housing needs, is located in the Herald R. Clark Student Service Center. All inquiries or administrative problems relating to housing needs should be referred to this office.

#### HOUSING RENTAL AGREEMENTS

Students planning to live either in campus housing or in off-campus housing may expect to sign a rental agreement for the accommodations they will occupy. Students should be prepared to live by the terms of these agreements once they have signed them. Many misunderstandings and financial losses can be avoided by students if they will read and familiarize themselves with the terms of the agreement before signing.

A word of caution: Housing is such an important part of the total experience of the student at the university that he should give thoughtful consideration to the type of housing desired before he enters into the rental agreement. Further, to avoid discomfiture and possible loss of money, each student should be sure that the accommodations under consideration have been approved by the university.

## Campus Housing APPLICATIONS

Students who enroll at the university and who wish to live in university residence halls should make inquiry at the earliest possible date to the Office of Student Housing. A housing application form will be forwarded to each inquiring student. A \$10.00 application fee should be enclosed with the completed application form when it is returned to the Office of Student Housing. Residence hall assignments and appropriate "agreement forms" are prepared on a basis of the date of receipt of the application form by the Housing.Office.

#### ACCEPTANCE

The validating of any campus housing reservation is contingent upon the student's official acceptance and admission to the university.

#### RESIDENCE HALLS FOR WOMEN

Housing for 1,539 women is provided in 24 Heritage Halls. These are apartment-type buildings. Each apartment consists of a combination kitchen-dining-study room arrangement, three bedrooms, and a bath. In addition, there are large living rooms, a recreation room, and laundry and storage facilities in each building. Six girls occupy an apartment and live cooperately, preparing their own meals. The apartments are completely furnished except for bedding, kitchen utensils, and dishes. The facilities are excellent and offer a high standard of living for college students. The approximate annual rate for these accommodations is \$225.00.

Each hall is under the supervision of a head resident couple, who are generally responsible for the personal welfare and social life of students in the hall. Help in the homemaking experiences of budgeting, buying, meal planning, and the selection, care and construction of clothing is available from specialists who are assigned to the Heritage Halls. In addition, a specialist is available to assist students in planning social activities, developing recreational skills, and learning wise use of leisure time.

The university operates two residence halls for women where board and room are provided. These two halls, Amanda Knight Hall and Knight-Mangum Hall, house 418 students. The halls, completely furnished, provide every modern convenience, including well-planned food service. Students are under supervision of a trained head resident. The approximate annual rate for these accommodations is \$540.00.

Each woman student who desires to live on campus should consider carefully the type of accommodations desired in view of her economic needs, time available for activities within her housing situation and type of experience desired. Agreements are made for the year, and moving from one type of accommodations to another during the year is not permitted.

#### RESIDENCE HALLS FOR MEN

Board and room services for 72 men are provided in a traditional type residence hall, the Allen Hall, located one block from the campus. It provides sleeping rooms, dining hall, living and social room, study room, and adequate laundry and storage rooms.

Board and room services for 1,170 men are provided in six new buildings known as Helaman Halls. These buildings form a beautifully designed residence hall development and are located to the north of the George Albert Smith Fieldhouse. There are five residence hall buildings, conveniently grouped around an attractively planned and developed central building. Each residence hall accommodates 234 students, with two men sharing each bedroom. In addition, living rooms, study rooms, central shower areas, recreational rooms, adequate laundry and storage facilities, and a head resident couple apartment comprise each building. These halls provide some of the best student living experiences offered on any university campus. The central building contains spacious dining rooms and a snack bar, providing the excellent food service for which the B.Y.U. is noted. This building also contains beautiful living rooms, recreational areas, administrative offices, and other management facilities such as mail rooms, gun storage areas, and laundry and dry cleaning pick up stations.

Adequate adult head resident and student senior resident personnel live in all halls to provide leadership and direction in the personal welfare and social life of each student. Student government and councils are organized to aid the head residents in administering good living practices in each hall. The approximate annual rate for these accommodations is \$540.00.

#### APARTMENTS AND HOMES FOR MARRIED STUDENTS

Family accommodations for 350 married couples and their children are provided in housing developments known as Wymount Village and Wyview Village.

The Wymount Village consists of 200 apartments (efficiency, one-bedroom and two-bedroom). These buildings were acquired from the federal government and moved to their present site following World War II. The maximum monthly rental rate approximates \$40.00.

The Wyview Village consists of 150 prefabricated homes purchased in 1956 from a federal government airbase and moved to a site adjacent to the campus. There are 100 two-bedroom and 50 three-bedroom homes. The monthly rental rates approximate \$45.00 for the two-bedroom and \$50.00 for the three-bedroom home. Each family, in addition, will pay for its own electricity.

Applications for apartments or homes are placed on the waiting list according to the size of the family needing accommodations. There is a six-month waiting list at the present time.

Note: The Off-Campus Department of the Student Housing Office can assist married students to find suitable apartments in the Provo community. Approximately 1,000 units are available to married couples.

### Off-Campus Housing

Off-campus housing consists of apartments, rooms with kitchen privileges, board and room, and sleeping rooms. These facilities are inspected by the university to see that they comply with established standards before they are approved for student occupancy. Through the cooperative efforts of both the householders of the community and the university, constructive action has been taken to raise the standards of student housing throughout the community. Before making any commitments for off-campus housing, students should make sure that the place in which they contemplate living has been approved by the university. The Off-Campus Department of the Office of Student Housing maintains up-to-date listings of approved residences. This office is established to assist students upon their arrival on campus to find suitable quarters, if students desire to reside in the community.

#### RATES

Rates for off-campus housing accommodations vary with the type of service provided, and as a consequence, only a general indication can be given here. Sleeping rooms rent from \$13 to \$20 a month. Apartment accommodations run from \$14 to \$25 per month per student. Board and room are available at from \$50 to \$65 a month. Apartments for married students can be obtained at a rate of approximately \$45 to \$70 per month.

## **Food Service**

Regular meal service is provided for students at five different cafeterias on the campus. Four of these are operated as part of the board and room service of residence halls. It is possible for students living off-campus to buy meal tickets at reduced prices and eat in one of these places. The fifth cafeteria is in the Joseph Smith Building, where meals are served at reasonable prices on a cash basis.

The university operates three snack bars, one in the Joseph Smith Building, a second in the George Albert Smith Fieldhouse, and a third in the Helaman Halls Cannon Center. Food is available in them throughout the day. Food may be secured through vending machines located throughout the campus. Costs of meals and food service are kept as low as possible, consistent with sound operating management.

The university also operates a creamery where milk, ice cream and other dairy products may be purchased by students and faculty at very favorable prices. Students preparing their own meals find this service both desirable and economical.

#### Photo Studio

Located in the Eyring Science Center is a modern, fully equipped portrait and commercial photo studio, established to provide economical photographic service to students, faculty, and administrative departments. This studio has served the campus for twenty-five years. Any student or faculty member may take advantage of the services offered by the up-to-date department.

Recently, new production equipment has been added to make possible modern techniques in photographic production, thus increasing quality and efficiency. Any photographic need may be satisfied by the present studio.

## **Post Office**

The Postage and Mailing Department is located in the Student Service Center. Its function is to pick up and deliver all of the inter-campus mail, to sort and deliver all U.S. mail received by the university, and to pick up and meter all of the outgoing U.S. mail. Two deliveries and three pick-ups are made each day on the campus.

Directory service is available for all mail addressed to Brigham Young University that does not indicate the department for which it is intended. This is true also for mail sent to students c/o Brigham Young University.

A U.S. Post Office Branch, Station 1, is located in the Student Service Center, where students can pick up and send mail. Individual rental boxes are available for student use.

# List of Courses

## General

Semester System. Commencing with Autumn Quarter 1960, courses of study at Brigham Young University will be offered on a semester basis rather than on a quarter basis as at the present time. The General Catalog of Courses scheduled for publication in April 1960 will contain information and course listings based upon the semester system.

It is felt that the semester system will benefit both present and prospective students by reducing administrative procedures and by increasing opportunity for effective learning.

#### Course Numbering System.

Course Number	Type of Course
1 to 99	Preparatory and remedial (non-credit)
100 to 299	Lower Division
300 to 499	Upper Division
500 to 599	Advanced undergraduate or graduate
600 to 799	Graduate

Credit Hour Designation. The three-number code for credit hours has the following significance:

First number:	Quarter Hours of Credit
Second number:	Class hours of lecture, recitation, or seminar meeting per week or

Minimum hours of individual study required per week

Third number: Laboratory hours required per week or

Hours of field study or individual research per week

Cross Referencing of Courses. Each course is listed completely only once in the catalog. If the course may count in another department, it appears in a special grouping at the end of the course listing for that department.

Reservation of Right to Change Courses. At the time of printing of this catalog, the university intends to give the courses listed herein, but reserves the right to eliminate or discontinue any of them or to add new courses.

## Accounting

Professors: H. V. Andersen (chairman), R. J. Smith.

Assistant Professor: Johnson.

Instructors: Skousen, J. M. Smith, White.

#### Requirements

A prospective major in this field must have as a minimum background Accounting 285, 352, and those classes prerequisite thereto or the equivalent hereof, and he should preferably have a full undergraduate major in the field. A student may be accepted for major study in this field when he has completed only Accounting 201 and 202, but he would be required to complete 350, 351, and 352 before taking any graduate work; these courses could not be applied on his master's program. Accounting 285 may be taken at the same time other work is being taken at the graduate level.

#### Advanced Undergraduate or Graduate Courses

- 545. Theory of Accounts and Statements. (5:5:0) W. Staff 555. Accounting Systems, Procedures and Methods. (5:5:0) W. Prerequisites:
- Accounting 102 or 202; 316, B.E.O.M. 106. Staff Electronic Computer Programming. (5:5:0) A.W. Prerequisites: Accounting **556.**
- 230 or equivalent; and 316. Staff Advanced Computer Programming. (3:3:0) S. Prerequisite: Accounting 556. 557.
- Johnson 565. Auditing and Professional Ethics. (5:5:0) A.Su. Prerequisite: Accounting 352. Johnson
- 570. Advanced Accounting. (5:5:0) A.Su. Prerequisite: Accounting 352.
- Staff
- 571, 572. Industrial Internal Auditing. (3:3:0 ea.) W.S. Not offered this year. Prerequisites: Accounting 352, 565 or equivalent. Staff
- 582. Advanced Tax Problems. (3:3:0) S. Prerequisite: Accounting 450. Staff
- **584.** Advanced Cost Accounting. (3:3:0) S. Prerequisite: Accounting 285. Staff
- 586, 587, 588. C.P.A. Coaching. (4:1:0 ea.) A.W.S Evening Sessions. Prerequisites: Accounting 285, 352, 565, and the following, which should be taken before or with C.P.A. Coaching: Accounting 440, 450, 570. Staff
- 593. Reading and Conference. (1-5:1-5:0) A.W.S.Su. Subject to be arranged with instructor. Staff Staff
- 596. Accounting Internship. (Arr.) W.

#### Graduate Course

699. Thesis for Master's Degree. (Arr.) Arr.

Staff

## Agricultural Economics

Associate Professor: Corbridge (chairman, 171 Brimhall).

#### Requirements

A graduate degree is not currently offered in Agricultural Economics, but graduate credit in the following courses may be applied toward a minor in a field closely related to Agricultural Economics.

#### Advanced Undergraduate or Graduate Courses

**530.** Intermediate Statistics. (3:2:1) W. Prerequisite: consent of instructor.

Staff

**531.** Advanced Statistics. (3:2:1) S. Prerequisite: Agricultural Economics 530.

Staff Corbridge

580. Agricultural Policy. (3:3:0) A.

590, 591. Seminar. (1:1:0 ea.) A.W.	Staff
595. Individual Readings. (Arr.) A.W.S.	Staff
597. Individual Research. (Arr.) A.W.S.	Staff

## Agronomy

Professor: Farnsworth.

Associate Professors: Allred (chairman, 172 Brimhall), Hallam.

#### Requirements

Students preparing for graduate work in Agronomy are urged to obtain a thorough knowledge of introductory physics, chemistry, mathematics, botany, bacteriology, and geology. Opportunity will be afforded for further study in some of these subjects after entering the Graduate School, but a student deficient in these foundation courses cannot expect to receive an advanced degree in the minimum time otherwise required.

The Agronomy Department has established the following minimum require-

ments for permission to study toward a Master's Degree:

Satisfactory completion of the following undergraduate courses or their equivalents: Chemistry 111, 112, 113, 221, plus one year of upper division chemistry; Mathematics 111, 112, 231, 232, 233; Geology 111; Bacteriology 121; Physics 211, 212, 213; Botany 101, 410. If a student is emphasizing crops, Botany 410 may be applied toward the graduate program and need not be completed as undergraduate. graduate work. If, however, this course has been taken as undergraduate work, more time will be afforded for graduate courses.

#### **Advanced Undergraduate or Graduate Courses**

503. Soil Chemistry. (3:3:0) W. Prerequisites: Chemistry 221 or consent of in-Hallam structor. 506. Soil and Plant Analysis. (3:0:6) W. Prerequisites: Agronomy 305, Chemistry

220 or 221.

## **Graduate Courses** 601. Advanced Soil Physics. (4:3:3) W.

Farnsworth 605. Chemistry of Soil-Plant Relationships. (4:4:0) A. Hallam

> Staff Staff

Staff

Staff

614. Advanced Soil Microbiology. (3:3:0) S. Prerequisites: Agronomy 305, Bacteriology 121. Hallam

Soil Microbiology Laboratory. (2:0:4) S. Prerequisites: Agronomy 614, 615. Chemistry 221 or equivalent. Accompanies microbiology lectures. Hallam Advanced Plant Breeding. (3:2:2) A. Not given this year. Allred Staff

694. Seminar. (1:1:0) A.W.S.

695. Special Problems. (Arr.) A.W.S. 697. Research. (Arr.) A.W.S.Su.

698. Agricultural Literature. (Arr.) A.W.S. 699. Thesis for Master's Degree. (Arr.) Ar 699. Thesis for Master's Degree. (Arr.) Arr. The following course also counts in Agronomy:

Botany 712. Plant Nutrition and Growth. (3:2:2)

## Animal Husbandry

Professors: Cannon, Morris (chairman, 150 B).

Associate Professor: Richards. Assistant Professor: Hoopes.

#### Requirements

A student contemplating graduate study in Animal Husbandry must have received his undergraduate degree in this field or have completed courses with ar equivalent background.

For a major or minor in Animal Husbandry, a student may specialize in either the general field of livestock, dairy or poultry production. A student wishing to minor in Animal Husbandry must present at least 15 college credits in this field, and they should include principles of feeding, breeding and manage-

ment.

Introductory courses in physiology, zoology, chemistry and mathematics prerequisite to or including statistics, are essential preparation for graduate work in any phase of Animal Husbandry.

#### Advanced Undergraduate or Graduate Courses

919.	Advanced Animal Breeding. (3:3:0) S.	Richards
<b>564</b> .	Secretion of Milk. (3:3:0) A.	Staff
571.	Advanced Poultry Practices. (1-3:0:3-9) A.W.S.	Morris
592.	Current Problems. (2:2:0) W.	Cannon
502	Saminar (1:1:0) S	Connon

#### Graduate Courses

	Experimental Techniques and Design. (3:0:9) A.W.S. Advanced Nutrition of Ruminants and Non-Ruminants. (3:3:0) W.	Staff
	Shu	mway
660.	Advanced Livestock Management. (3:1:4) A.W.S.	Staff
691,	692, 693. Animal Husbandry Research. (1-3:0:3-9 ea.) A.W.S.	Staff
694,	695, 696. Animal Husbandry Research. (1-3:0:3-9 ea.) A.W.S.	Staff
Í	May include research in breeding, diseases, artificial insemination nutrition in dairy husbandry, poultry husbandry or animal husbandry.	on or
699.	Thesis for Master's Degree. (Arr.) Arr.	Staff
The f	following courses also count for graduate credit in Animal Husbandry:	
Agric	cultural Economics 530. Intermediate Statistics. (3:2:1)	
	cultural Economics 531. Advanced Statistics. (3:2:1)	

## Archaeology

Associate Professor: Jakeman (chairman, 203 ESC). Assistant Professor: R. T. Christensen.

#### Requirements

Admission as a graduate major in Archaeology requires evidence of previous completion of an undergraduate major in this subject, or equivalent background.

#### Advanced Undergraduate or Graduate Courses

531. Methods of Archaeological Research. (2:2:0) Not given this year. Jakeman 551. Field Archaeology. (4:0-2:8-4) A. Prerequisite: Archaeology 531.

Christensen

Student participation in the actual excavation of a prehistoric Indian mound of Utah Valley, and the processing and recording of the excavated material.

571. Interpretative Archaeology. (3:3:0) W. Prerequisite: Archaeology 551; recommended prerequisites: Archaeology 221 and 327, Sociology 460, and English 215 and 216. Christensen **590.** 

Museum and Field Studies. (3-9:0:6-18) A.W.S. Staff Guided studies at important museums and archaeological sites of the United States or Latin America and a report on these studies.

**594.** Seminar. (2:2:0) S. **596, 597, 598.** Readings in Archaeology. (2:0:6 ea.) A.W.S. Jakeman Staff

#### **Graduate Courses**

601.	History	and	Theory	of	Archaeology.	(2:2:0)	Not	given	this	year.
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Christensen Archaeological Surveying. (2:1:2) A. Not given this year. Christensen Ceramic Typology. (1:1:0) W. Not given this year. Jakeman 631.

Studies in Comparative Stratigraphy: Near East. (2:0:6) A.W. Staff **650**. 655. Special Studies in Biblical Archaeology. (2:0:6) S.660. Studies in Comparative Stratigraphy: Mesoamerica. (2:0:6) A.W. Staff

Staff 665. Special Studies in Book-of-Mormon Archaeology. (2:0:6) S. Staff

671, 672. Maya Hieroglyphics. (2:0:6 ea.) W.S. Jakeman

Library Research. (2:0:6) A.W.S.	Staff
Field or Museum Research. (3:0:9) Arr.	Staff
Guided field or museum research in the Southwest.	
Field or Museum Research. (5:0:15) Arr.	Staff
Guided field or museum research in Mexico or Central America.	
Field or Museum Research. (8:0:24) Arr.	Staff
Guided field or museum research in the Near East (Palestine	, Egypt, or
Mesopotamia).	
Thesis for Master's Degree. (Arr.) Arr.	Staff
se courses also count for credit in Archaeology:	
403. Ancient and Primitive Art. (2:2:0)	
nitic Languages 610. The Reading of Ancient Hebrew Inscriptions.	(2-3:2-3:0)
nitic Languages 621, 622, 623. Elementary Akkadian. (2:2:0 ea.)	
nitic Languages 625, 626, 627. Elementary Egyptian. (2:2:0 ea.)	
	Field or Museum Research. (3:0:9) Arr. Guided field or museum research in the Southwest. Field or Museum Research. (5:0:15) Arr. Guided field or museum research in Mexico or Central America. Field or Museum Research. (8:0:24) Arr. Guided field or museum research in the Near East (Palestine Mesopotamia). Thesis for Master's Degree. (Arr.) Arr. secourses also count for credit in Archaeology: 403. Ancient and Primitive Art. (2:2:0) httic Languages 610. The Reading of Ancient Hebrew Inscriptions. httic Languages 621, 622, 623. Elementary Akkadian. (2:2:0 ea.)

## Art

Associate Professors: Mathews (chairman, 312 E), Andrus, Gunn. Assistant Professors: Turner, Wilson.

1. Painting and Sculpture, 2. Design and Crafts.

#### Requirements

Students who expect to major in Art should include in their undergraduate preparation four hours of lower division design, eight hours of lower division drawing, nine hours of art history (upper division) and twenty-four hours of upper division work in one of the areas of specialization as outlined in the undergraduate catalog.

#### **Advanced Undergraduate or Graduate Courses**

501. Aesthetics. (3:3:0) W. 544, 545, 546. Advanced Commercial Art. (2:2:4 ea.) A.W.S.	de Jong Gunn
567. Wood Carving. (2:2:2) S. 580, 581, 582. Mural Painting, (2:2:4 ea.) A.W.S.	Wilson Darais
586, 587, 588. Studio Art. (1-4:1-4:2-8 ea.)	Staff

#### **Graduate Courses**

602. Composition. (Arr.) W.	Turner
611. Contemporary Mural Design. (Arr.) W.	Darais
615. Period Furnishing. (3:3:0) A.	Taylor
616. Decorative Material for Interior Design. (3:3:0) W.	Taylor
617. Practical Problems in Interior Design. (3:3:0) S.	Taylor
621, 622, 623. Advanced Drawing and Painting. (Arr.) A.W.S.	Andrus
624, 626. Landscape Painting. (Arr.) A.S.	Turner
625. Still-Life Painting. (Arr.) W.	Turner
627, 628, 629. Pictorial Composition. (Arr.) A.W.S.	Turner
633, 634, 635. Advanced Water Color Painting. (Arr.) A.W.S.	Turner
639. Lettering and Layout for Reproduction. (Arr.) A.W.S.	Gunn
642. Various Media in Illustration. (Arr.) W.	Gunn
650. Experimental Relief Printing. (Arr.) A.	Andrus
651. Color Lithography and Etching. (Arr.) W.	Andrus
652. Seriography. (Arr.) S.	Andrus
656, 657, 658. Advanced Sculpture. (Arr.) A.W.S.	Wilson
665. Ceramics. (Arr.) A.W.S.	Wilson
666. Metal Work and Jewelry. (Arr.) W.	Johansen
667. Wood Sculpture. (Arr.) S.	Wilson
668. Teaching Art in the Secondary Schools. (3:3:0) W.	Staff
671. Survey of Recent Studies in Art Education. (3:3:0) A.	Gunn

774, 675, 676. Portrait and Figure Design and Painting. (Arr.) A.W.S. Andrus 380, 681, 682. Design and Painting Mural Types. (Arr.) A.W.S. Staff 383, 684, 685. Studio Art. (Arr.) A.W.S. Staff 990, 691, 692. Color. (2:2:4 ea.) A.W.S. Andrus Staff 995. Seminar. (1:1:0) A.W.S. Andrus Staff 999. Thesis for Master's Degree. (Arr.) Arr. Staff

## Bacteriology

Professor: J. V. Beck. Associate Professors: Donaldson, D. H. Larsen (chairman, 124 Brimhall). Assistant Professors: Hoskisson, Sagers.

#### Requirements

Adequate preparation for graduate work in the department of Bacteriology presupposes satisfactory training in the physical and biological sciences. If a student is deficient in foundation courses, opportunity will be given after entering graduate school to correct these deficiences. However, such a student must show outstanding natural and academic abilities and will not be able to receive the advanced degree in the minimum time required of more qualified candidates. Prior to acceptance as a graduate major in the Department of Bacteriology, credit will be evaluated with particular emphasis placed on the applicant's training in qualitative, quantitative, organic and biological chemistry; mathematics; zoology; botany; and physics.

## Advanced Undergraduate or Graduate Courses

501. Pathogenic Microbiology. (5:3:6) W. Prerequisite: Bacteriology 301 or consent of instructor.
 502. Pathogenic Microbiology. (5:3:6) S. Prerequisite: Bacteriology 501. Larsen

Continuation of Bacteriology 501.

Immunology. (5:3:6) A. Prerequisite: Bacteriology 501.

Donaldson

511. Immunology. (3:3:0) A. Prerequisite: Bacteriology 101 and bio 521. Industrial Microbiology. (3:3:0) A. Prerequisite: Bacteriology 101 and bio Chemistry. Larsen
 The role of microorganisms in the production of such products as acids,

alcohols, antibiotics, vitamins, and enzymes.

522. Industrial Microbiology Laboratory. (2:0:6) A. Prerequisite: Concurrent or previous registration in Bacteriology 521.

Larsen

531. Virology. (3:3:0) W. Prerequisite: Bacteriology 501. Donaldson
 532. Virology Laboratory. (2:0:6) W. Prerequisite: Concurrent or previous Donaldson registration in Bacteriology 531.

541. Cultivation and Nutrition of Bacteria. (3:1:6) S. Prerequisite: Bacteriology Sagers 301.
 551. Advanced Microbiology. (3:3:0) W. Prerequisite: Bacteriology 301. Beck

- Cytology, taxonomy, and bacterial chemistry.

  552. Advanced Microbiology Laboratory. (2:0:6) W. Prerequisite: Concurrent or previous registration in Bacteriology 551.

  Beck
- 561. Radioactive Tracer Techniques in Biology. (3:1:6) W. Prerequisite: Consent of instructor.
- 581. History of Bacteriology. (2:2:0) A. Prerequisite: senior or graduate status. Staff

#### **Graduate Courses**

- 611. Advanced Immunology. (3:3:0) S. Donaldson 651. Bacterial Metabolism. (3:3:0) S. Prerequisite: Bacteriology 551. Beck
- 652. Bacterial Metabolism Laboratory. (2:0:6) S. Prerequisite: Concurrent or previous registration in Bacteriology 651.
- 661. Bacterial Genetics. (3:3:0) A. Prerequisites: Bacteriology 301, a course in general genetics and chemistry 581, 582, 583 or equivalent. Sagers A study of genetic processes in bacteria and viruses, with special emphasis

on recombination, transduction, mutation, replication mechanisms, and related topics.

Staff

Staff

Staff

691. Graduate Seminar. (1:1:0) A.W.S.

695. Research to Furnish Data for Thesis. (Arr.) A.W.S.

699. Thesis for Master's Degree. (Arr.) Arr. These courses also count in Bacteriology:

Agronomy 614. Advanced Soil Microbiology. (3:3:0)

Botany 535. Fungi. (3:1:5)

## Bible and Modern Scripture

Professors: Done, Sperry.

Associate Professor: Ludlow (chairman, 13 PHP).

Assistant Professors: H. Andrus, Barron, J. R. Clark, R. W. Doxey, Ricks, L.

M. Rogers.

Instructor: Rasmussen.

#### Requirements

The Department of Bible and Modern Scripture offers training leading to the Master of Arts, Master of Science, and Doctor of Philosophy degrees. A student must have adequate preparation on the undergraduate level before beginning work leading to one of these degrees. The admissions committee of the graduate faculty of religion will determine if the student is properly prepared.

Each graduate student must fill all the general regulations and requirements for advanced degrees as outlined by the Graduate School. The responsibility of knowing and fulfilling these regulations and requirements rests with the student.

#### Master's Degree

Before a student is admitted on a degree-seeking basis, the admissions committee of the graduate faculty of religion will carefully study and evaluate his preparation and fitness for a graduate program. After acceptance, the student must select his advisory committee, in consultation with the admissions committee, and must acquire at least 23 hours of formal course or seminar work in his major field and 15 quarter hours of formal course or seminar work in his minor field; write an acceptable thesis embodying the results of research under faculty supervision; and successfully pass an oral examination.

#### **Doctor of Philosophy Degree**

Requirements for the Doctor of Philosophy degree are as follows: The student must complete with distinction ("B" grade or better) each of the following core courses or their equivalents: Bible and Modern Scripture 601, 621, 651, 652, 653; History and Philosophy of Religion 310, 425, 531, 532, 533, 571, 572, 573, 581, 582, 583, 611, 612, 613, 632, 651, 653.

Inasmuch as some of the core courses are offered at the undergraduate level, the student may become proficient in these fields of knowledge before commencing his graduate studies. A demonstration of such proficiency through examination will make it unnecessary for the student either to take or repeat a given

course or courses as part of his graduate program.

The student must achieve a thorough mastery of his major, minor, and related fields, a program which will entail at least 60 quarter hours of course work. Part of this requirement may be included in the required core courses. The student will plan and work out his course work in consultation with his advisory committee; he must also elect either one or two minor fields.

A student who intends to specialize in this department will be required to demonstrate proficiency in the Biblical or modern language or languages essen-

tial to his research.

Upon completion of two years of graduate study in the doctoral program, the student must pass comprehensive written and oral examinations. These examinations will measure the student's maturity both in the core subjects and in his specialized field. They should be taken not later than three quarters before the degree is awarded. Successful completion of these examinations admits

the student to candidacy for the doctoral degree. Should the student fail the examinations, the question of whether or when he may repeat them will be determined by his advisory committee in consultation with the admissions committee. In no case will these examinations be repeated earlier than six months after failure.

The candidate must select a topic in consultation with his advisory committee and write a satisfactory dissertation embodying the results of original research. Thereafter, the candidate must pass an oral examination, at which time he must publicly defend his dissertation before a formally appointed committee.

### Advanced Undergraduate or Graduate Courses

Ludlow, Ricks, Sperry 524. Analysis of the Book of Mormon. (2:2:0) A.W.S. Ludlow, Ricks, 590, 591, 592. Seminar. (Arr.) A.W.S. Prerequisite: consent of instructor.

590,	For students who desire to pursue specialized problems related to the Bible and modern scripture.
	Graduate Courses
601.	Literature and Religion of the Old Testament. (5:5:0) A.
	Rasmussen, Rogers, Sperry
<b>602.</b>	The History of Israel. (5:5:0) A. Rasmussen, Rogers, Sperry
<b>603.</b>	The Prophets of Israel. (5:5:0) W. Rasmussen, Rogers, Sperry
604.	The Canon and Text of the Old Testament. (3:3:0) A. Staff
605.	The Apocrypha and Pseudepigraphs. (3:3:0) W. Nibley
<b>606.</b>	Hebrew Wisdom Literature. (3:3:0) W. Staff
607.	The Manners and Customs of the Hebrews. (3:3:0) A. Sperry
619.	
621.	Literature and Religion of the New Testament. (5:5:0) A. Staff
622.	The History of New Testament Times. (3:3:0) A. Staff
<b>623</b> .	The Life and Teachings of Jesus. (5:5:0) W. Sperry
624.	Paul's Life and Letters. (5:5:0) S. Sperry
	The General Epistles and the Apocalypse. (3:3:0) A. Staff
	The Text and Canon of the New Testament. (3:3:0) W. Staff
	The Textual Criticism of the New Testament. (3:3:0) W. Staff
641.	The Gospel and Acts in Greek. (3:3:0) A. Prerequisite: Ability to pass de-
0.40	partmental examination in Greek.
642.	Paul's Epistles in Greek. (3:3:0) W. Prerequisite: Ability to pass depart-
240	mental examination in Greek.
643.	The General Epistles and the Apocalypse in Greek. (3:3:0) S. Prerequisite:
040	Ability to pass departmental examination in Greek.  Nibley
	Seminar on the New Testament. (2-5:2-5:0) Staff
	An Analysis of the Book of Mormon. (5:5:0) A. Sperry
	An Analysis of the Doctrine and Covenants. (5:5:0) W. Sperry
	An Analysis of the Pearl of Great Price. (3:3:0) S. J. R. Clark Seminar on Modern Scripture. (2-5:2-5:0) Arr. Staff
	Thesis for Master's Degree. (Arr.) Arr. Staff Doctoral Dissertation. (Arr.) Arr. Staff
199.	
offor	(The attention of majors in Scripture is called to courses in archaeology ed by the Department of Archaeology, especially courses 655 and 665.)
oner	ed by the Department of Archaeology, especially courses 035 and 005.)

## Biblical Languages

Professor: Sperry (chairman, 122 S). Instructors: Meservy, Rasmussen.

#### Requirements

The Department of Biblical Languages offers training leading to the Master of Arts degree. A student must have adequate preparation on the undergraduate level before beginning work leading to this degree. The admissions committee of the graduate faculty of religion will determine if the student is properly prepared.

46 BOTANY

Each graduate student must fill all the general regulations and requirements for advanced degrees as outlined by the Graduate School. The responsibility of knowing and fulfilling these regulations and requirements rests with the student.

#### Master's Degree

Before a student is admitted on a degree-seeking basis, the admissions committee of the graduate faculty of religion will carefully study and evaluate his preparation and fitness for a graduate program. After acceptance, the student must select his advisory committee, in consultation with the admissions committee, and must acquire at least 23 hours of formal course or seminar work in his major field and 15 quarter hours of formal course or seminar work in his minor field; write an acceptable thesis embodying the results of research under faculty supervision; and successfully pass an oral examination.

#### Advanced Undergraduate or Graduate Courses

511, 512, 513. Elementary Biblical Hebrew. (5:5:0 ea.) A.W.S. No prerequisites. Meservy, Rasmussen, Sperry Taught as a "living language" for use by those who wish to converse and

those who wish to use it as a tool for studying and teaching the Old Testament. Methods and materials for teaching Hebrew in the light of modern language methodology are taught. Open to all who demonstrate linguistic ability.

514, 515, 516. Advanced Hebrew Grammar and Selected Readings from the Old Testament. (3:3:0) A.W.S. Prerequisite: Courses 511, 512, 513, or equivalent. Rasmussen

#### **Graduate Courses**

601, 602, 603. Selections from the Wisdom Literature, Major and Minor Prophets, and Psalms. (2-5:2-5:0 ea.) A.W.S. Prerequisite: Two years of Hebrew or consent of instructor. Meservy, Rasmussen, Sperry

607, 608, 609. Biblical Aramaic and the Targums. (2:2:0 ea.) A.W.S. Prerequi-

site: Two years of Hebrew or consent of instructor.

Sperry
The Reading of Ancient Hebrew Inscriptions. (2-3:2-3:0) Given on request.
Prerequisite: Two years of Hebrew or consent of instructor.

Sperry 611, 612, 613. Elementary Syriac. (3:3:0 ea.) A.W.S. Prerequisites: 511, 512, 513,

Sperry

614, 615, 616. Advanced Syriac. (2:2:0 ea.) A.W.S. Sperry 621, 622, 623. Elementary Akkadian. (2:2:0 ea.) A.W.S. Prerequisite: Two years

Sperry of Hebrew or consent of instructor. 625, 626, 627. Elementary Egyptian. (2:2:0 ea.) A.W.S. Prerequisite: Two years of a Semitic language or consent of instructor.

699. Thesis for Master's Degree. (Arr.) Arr. Staff

## Botany

Professor: Harrison. Associate Professors: E. M. Christensen, McKnight (chairman, 233 Brimhall). Assistant Professors: Moore, Murdock, Stutz.

#### Requirements

A student working toward a graduate degree in botany should have a basic understanding of general botany, taxonomy, genetics, morphology, physiology, and ecology. It is assumed that he will also have training in mathematics, chemistry, physics, bacteriology, soils, and zoology that is adequate for advanced study in the area of his specialization. Where deficiencies exist provision may be made for correcting them.

An advisory examination is required of all candidates for graduate degrees. This examination is based on the student's undergraduate preparation in the major fields of botany and should be completed by the end of the first full quarter

of graduate study.

McKnight

#### Advanced Undergraduate or Graduate Courses

(3:2:4) S. Prerequisite: Botany 101.

631.

668.

445.

35. Fungi	(3:2:4) A. Prerequisite: Botany 101.	McKnight
43. Mosse	s and Ferns. (3:2:4) W. Prerequisite: Botany 101.	McKnight
i46. Seed	Plants. (3:2:4) S. Prerequisite: Botany 101.	Moore
571. Water	shed Management. (3:3:0) A. Field trips to be arranged.	Murdock
590, 591.	eminar. (1:1:0 ea.) A.W.	Staff
593. Specia	I Problems in Range Management. (1-5:0:3-15) A.W.S.	Staff

#### **Graduate Courses**

504.	Advanced Ta	axonomy. (	2-5:0	:6-15) S	. r	rerequisite:	s: Botar	ıy	123	and	145
	or consent of	f instructor.								M	oore
315.	Agrostology:	Taxonomy	and	Ecology	of	Grasses.	(3:1:4)	A.	Pre	requi	site:

Botany 123. Botany 145 recommended. H
325. Cytogenetics. (4:3:2) W. Prerequisite: Botany 355.
350. Speciation. (3:3:0) S. Prerequisite: genetics or consent of instructor.
665. Lower Fungi. (5:3:4) W. Prerequisite: Botany 112 or 535. Mc Harrison Stutz

Stutz McKnight Classification, structure, and relationships of the myxomycetes and phyco-

mycetes. Higher Fungi. (5:3:4) S. Prerequisite: Botany 112 or 535. McKnight Classification, structure, and relationships of the ascomycetes, fungi im-McKnight perfecti and basidiomycetes.

683. Fleshy Fungi. (3:3:6) Su. McKnight The names, characteristics, and distribution of the edible and poisonous mushrooms, pore fungi, and puffballs of Utah.

691, 692. Special Problems. (2-5:0:6-15 ea.) A.W.S. Thesis for Master's Degree. (Arr.) A.W.S. Experimental Ecology. (3:2:2) S. Prerequisites: Botany 410, 430. 690, Staff 699. Staff

706.

Harrison 712. Plant Nutrition and Growth. (5:3:4) A. Prerequisites: Botany 410, Chemistry 111, 112. Recommended prerequisite: organic chemistry. Harrison 733. Grassland Ecology. (3:3:0) S. Prerequisite: consent of instructor.

Christensen, Murdock

735. Forest Ecology. (3:3:0) W. Prerequisite: consent of instructor. Christensen, Murdock

742. Field Ecology. (2:1:0) S. Extended field trip. Prerequisite: consent of instructor. Conservation of Natural Resources. (2-5:1:3-12) W. Prerequisite: consent of

754. Christensen, Murdock 758. **Methods in Range Management.** (3-5:1:3-12) S. Prerequisites: Botany 430,

## **Business Education and Office Management**

Professor: E. L. Christensen (chairman). Associate Professors: Croft, D. A. Peterson. Assistant Professor: Crandall.

#### Requirements

Currently a graduate degree in Business Education and Office Management is not granted at Brigham Young University; however, the following courses may be applied towards a minor in a field closely related to Business Education and Office Management.

#### **Graduate Courses**

630.	Current Developments Influencing the Content of Business Education.	(3:3:
	0) A.	Staff
625	Pagent Changes in the Materials and Methods of Business Education (	3.3.0)

ent Changes in the Materials and Methods of Business Educat W. Staff

-Staff 640. Trends of Thought in Business Education. (3:3:0) S. Staff 660. Business Education Problems in the Secondary School. (3:3:0) Su.

665. Practicum in Business Education. (3:3:0) W. Staff 670. Cooperative Business Experience Workshop. (6:6:6) S.

675. Business Education Workshop, (3:3:0) Su.

Staff Staff

Wilson

## **Business Management**

Professors: Boyle (emeritus), H. R. Clark, Lowe, R. L. Smith, W. J. Taylor.

Associate Professor: Oaks (chairman). Assistant Professors: Davis, Wilson. Instructors: Covey, Faux.

Fields

Business Management, Finance and Banking, Industrial Management, Marketing.

#### Requirements

For full graduate standing, a student must have completed Accounting 201 and 202, Economics 111, 331, and 332, and Business Management 340, 347, and 348 or the equivalent of these courses. In some cases students who have completed part of this background will be given provisional graduate standing if they agree to complete the rest of the program in addition to their graduate studies. Permission to minor in these fields is sometimes granted to those who do not have all of these courses if their previous training and experience appears to be an adequate foundation for their projected graduate program.

#### Advanced Undergraduate or Graduate Courses

- Human Relations in Administration II. (4:4:0) W.S. Prerequisite: Business Management 420 or consent of instructor.
- Advanced Corporation Finance. (5:5:0) S. Prerequisite: Business Management 348 or consent of instructor. Clark
- Problems in Advertising. (5:5:0) W. Prerequisite: Business Management 455 or consent of instructor. Staff
- Problems in Retail Store Management. (5:5:0) S. Prerequisite: Business **556.** Management 456 or consent of instructor. Staff
- 557. Problems in Sales Management. (5:5:0) A.S. Prerequisites: Business Management 203 and 347 or consent of instructor. 558, 559. Advanced Problems in Marketing Research. (Arr.) A.W.S. Prerequi-
- site: Business Management 458 or consent of instructor. Staff
- 560. Problems in Production—Manufacturing Processes. (5:6:0) A. Prerequisites: Business Management 203 and 340. Wilson
- 561. Problems in Production-Manpower Management. (5:6:0) W. Prerequisite: Business Management 560. Wilson 562. Problems in Production—Production Control. (5:6:0) S. Prerequisite: Busi-
- ness Management 561. Wilson sent of instructor. Staff
- Life Insurance. (3:3:0) W. Prerequisite: Business Management 450 or con-566. Property and Casualty Insurance. (3:3:0) S. Prerequisite: Business Manage-
- ment 450 or consent of instructor.
- 567. Real Estate Administration. (3:3:0) S. Prerequisite: Business Management Lowe
- 569. Personnel Management. (5:5:0) W. Prerequisite: Business Management 340 or consent of instructor. Faux
- 571. Management of Financial Institutions. (5:5:0) A. Lowe 572. Industrial Quality Control. (3:4:0) A. Prerequisites: Accounting 230, Eco-
- nomics 331, and Business Management 340 or equivalent. Management of Production Facilities. (3:4:0) W. Prerequisite: Business 573. Wilson Management 560.
- 574. Investment Management. (5:5:0) W. Staff 575. Advanced Production Methods. (3:4:0) S. Prerequisite. Business Management 561. Wilson
- 576. Industrial Planning and Forecasting. (3:3:0) A. Prerequisite: departmental approval. Staff
- 577. Modern Corporate Problems. (3:3:0) S. Lowe

	1 Toblems in Marketing. (0.0.0) A.W.	Dian
585.	Industry Analysis. (5:5:0) S. Prerequisites: Business Management 56	0 and
	588.	Staff
588,	589. Problems in Business Management. (4:4:0 ea.) W.S.	Staff
591.	Research and Diagnosis of Business Problems. (2:2:0) S. Prerequisite:	Busi-
	ness Management 588 or consent of instructor.	Faux

#### **Graduate Course**

699. Thesis for Master's Degree. (Arr.) Arr.

These courses also count in Business Management:

Accounting 556. Electronic Computer Programming. (5:5:0)

Journalism 561. Public Relations. (3:3:0)

Staff

## Chemistry

Professors: K. P. Anderson (chairman 225 ESC), Broadbent, Bryner, Goates, Hall, Nicholes, A. D. Swensen.

Associate Professors: Blackham, C. J. Gubler, K. L. Nelson, H. W. Peterson, Vernon.

Assistant Professors: Butler, W. N. Hansen, Izatt, Snow, Wing.

#### Fields

1. Analytical—Physical Chemistry, 2. Biochemistry, 3. Inorganic Chemistry 4. Organic Chemistry, 5. Physical Chemistry, 6. Basic Chemistry Minor.

#### Requirements

It is expected that the graduate student will meet all the general requirements for advanced degrees as outlined by the Graduate School. The responsibility for meeting these requirements rests with the student. Special requirements of the Department of Chemistry are given below. The objectives of the department in the selection and training of candidates for advanced degrees are first, to secure adequate depth and breadth of knowledge; and second, to discover and develop ability to do independent and productive scientific research. The student's record in undergraduate courses will be accepted as partial evidence of the breadth of his knowledge. He will be expected to extend and broaden this knowledge by taking and auditing advanced courses selected with the approval of his advisory committee. Even after advancement to candidacy, this process will continue.

It is expected that during the first quarter of graduate work, the student will choose an advisory committee whose function will be to guide him throughout the course of his graduate study. It is the desire of the department that the student choose the chairman of his committee only after the fullest possible investigation of the opportunities available. It is required that he interview at least five faculty members active in research representing at least three areas. After these interviews, the results of which are to be recorded on a form to be obtained in the department office, the student will choose his major professor in consultation with the department chairman and the professor of his choice. The other committeemen will then be chosen by mutual consent of the student and his chairman.

Master's Degree

In addition to the general Graduate School requirements, a student must successfully complete departmental entrance examinations before he will be accepted as a candidate for the Master's degree. Each candidate for the Master's degree will be required to pass a reading test or present a year's credit in one foreign language acceptable for the Doctoral degree.

#### Doctor of Philosophy Degree

Requirements for a Doctor of Philosophy degree in some field of chemistry include satisfactory completion of the following:

1. A written entrance examination to determine whether or not the student

has sufficient background to take the basic set of courses required for the doctor's degree.

2. A major consisting of the following general courses required of all students, viz., Chemistry 503, 504 and 601 plus an additional 20 hours minimum chosen from the major area with the help of the student's advisory committee.

- chosen from the major area with the help of the student's advisory committee.

  3. The following list of basic courses: Chemistry 551, 611, 621, 652, 661, 662, 580. (Biochemistry students will not be required to take 580.) Those listed in the student's major field will count toward his major while the others will constitute a first minor in basic chemistry.
- 4. A second minor consisting of a minimum of 15 quarter hours of courses in not more than two supporting areas.
- 5. A comprehensive examination to determine the student's mastery of the basic information expected of all candidates for the Ph.D. degree in chemistry. It will consist of a written examination in each of the five basic fields of chemistry plus the minor field, if the minor field is not among the basic areas, and a general oral examination. It may not be taken before the end of the first year of full time study and will normally be taken at the end of the second year of full time study, but must be taken at least one year prior to the granting of the degree. The student is not a candidate for the Ph.D. degree in chemistry until he has successfully passed these examinations.
- 6. A series of cumulative examinations in the major field to be given quarterly. The student is required to pass at least four of these and may fail no more than four. They will be based primarily on unannounced aspects of the current literature in the field and are designed to be penetrating rather than broad in scope in order to determine the student's professional ability as contrasted with the amount of information which he may reproduce after an intensive period of "cramming."
- 7. A dissertation prepared under the direction of the candidate's advisory committee in which he reports and interprets the results of his research carried out under the direction of his major professor.
- 8. A final oral examination, which is to be devoted primarily to the dissertation.

#### Advanced Undergraduate or Graduate Courses

- 503. Research Laboratory Techniques. (1:3:0) A. Staff 504. Instrumental Analysis. (3:2:3) S. Butler, Goates 508. \*History of Chemistry. (3:3:0) S. Offered 1960-61. Nicholes
- 524. \*Quantitative Microanalysis. (3:1:6) W. Offered 1959-60. Wing 551. Qualitative Organic Analysis. (3-4:2:3-6) A. Blackham, Broadbent, Nelson 580. Metabolic Processes. (2:2:0) S. For non-biochemistry majors only.
- Gubler, Swensen, Vernon 581, 582, 583. Biochemistry. (5:3:6 ea.) A.W.S. Prerequisites: Chemistry 221, 353. Gubler. Swensen. Vernon
- Gubler, Swensen, Vernon 591, 592, 593. Chemical Literature and Scientific Writing. (2:1:3 ea.) A.W.S.
- 597. Special Problems. (Arr.) Registration by permission.

  Broadbent, Nelson
  Staff

#### Graduate Courses

- 601. Geometry of Atoms and Molecules. (5:5:0) A.
- 611. Systematic Inorganic Chemistry. (3:3:0) W. Blackham, Broadbent, Nelson Bryner, Hansen, Izatt, Nicholes, Peterson
- 612. \*Chemistry of the Non-Metals. (3:3:0) S. Offered 1959-60.
- Hansen, Izatt, Nicholes \*Chemistry of the Metals. (3:3:0) S. Offered 1960-61.
- 618. \*Inorganic Syntheses. (3:0:9) S. Offered 1959-60. Hansen, Izatt, Nicholes
- 621. Advanced Analytical Chemistry. (3:3:0) S. Butler
- 652, 653. Advanced Organic Chemistry. (3:3:0 ea.) W.S.
- 658. Organic Syntheses. (4:2:6) W. Blackham, Broadbent, Nelson Blackham, Broadbent, Nelson

Anderson, Goates,

(3:3:0 ea ) A W

661,	662. Chemical Thermodynamics. (3:3:0 ea.) A.W. Anderson, Goates, Hall, Snow
663. 681.	Reaction Kinetics. (3:3:0) S. Anderson, Goates, Hall, Snow *Carbohydrate Metabolism. (3:3:0) A. Offered 1960-61.  Gubler, Swensen, Vernon
	*Biochemistry of Amino Acids and Proteins. (3:3:0) W. Offered 1960-61. Gubler, Swensen, Vernon Gubler, Swensen, Vernon
683.	*Biochemistry of Lipids. (3:3:0) S. Offered 1960-61.  Gubler, Swensen, Vernon Gubler, Swensen, Vernon
697. 699. 711.	Biochemical Preparations. (2:0:6) A.W.S. Gubler, Swensen, Vernon Master's Candidate Research. (Arr.)  Thesis for Master's Degree. (Arr.) Arr.  *Coordination Compounds. (3:3:0) A. Offered 1960-61.  Selected Topics in Inorganic Chemistry. (1-3:1-3:0)  *Electroganalytical Chemistry. (3:3:0 ea.) A.W. Offered 1960-61.
729. 751. 757.	Selected Topics in Analytical Chemistry. (1-3:1-3:0) Staff Mechanisms of Organic Reactions. (5:5:0) A. Blackham, Broadbent, Nelson *Chemistry of Natural Products. (3:3:0) S. Offered 1960-61.  Broadbent, Vernon
759. 761,	*Heterocyclic Compounds. (3:3:0) W. Offered 1959-60.  Selected Topics in Organic Chemistry. (1-3:1-3:0)  762, 763. *Statistical Mechanics. (3:3:0 ea.) A.W.S. Offered 1960-61.  Snow
765 769 781 782 789 797	

## **Economics**

Professor: G. T. Nelson (chairman). Associate Professors: B. D. Gardner, Nielson. Assistant Professor: Davies. Instructors: Bradford, W. Doxey.

#### Requirements

For full graduate standing students must have completed a minimum of the following courses: Economics 111 or equivalent, 274, 331, and 345. Provisional standing may be given a student who has completed courses in Economics 111 or equivalent and either 274 or 345, provided he completes the other courses without graduate credit.

A minor in the field may be taken by one who has completed Economics

111 or equivalent, provided he also completes, without graduate credit, Economics

274 and 331.

## **Advanced Undergraduate or Graduate Courses**

532. Advanced Business Statistics. (3:3:0) W. Prerequisite: Economics 331 or Gardner, Nielson equivalent.

Business Research Methods. (3:3:0) S. Prerequisite: Economics 331 and Accounting 230 or equivalent.

534. Sampling Techniques. (3:3:0) A. Prerequisite: Economics 331 or equivalent. Nielson Doxey

550. Economics of Finance. (5:5:0) W. 556. Transportation and Traffic Management. (5:5:0) S.

Staff

558. International Trade and Finance. (5:5:0) S.

Doxey

562.	Collective Bargaining and Industrial Relations.	(3:3:0)	W. Prerequisite:
	Economics 461 or permission of instructor.		Davies
<b>563</b> .	Labor Law. (3:3:0) W. Prerequisite: Economics	461 or	permission of in-
	structor.		Davies
<b>575.</b>	Government Finance. (5:5:0) A.		Staff
576.	Government and Business. (5:5:0) W.		Staff

580. History of Economic Thought. (5:5:0) A.

Davies
586. Advanced Economic Theory. (5:5:0) S. Prerequisite: Economics 345.

593, 594, 595. Seminar. (1-2:1-2:0 ea.) A.W.S.

Gardner
Staff

#### **Graduate Courses**

681. Contemporary Economic Thought. (3:3:0) W.	Davies
682. Business and Economic Fluctuations. (3:3:0) A.	Nelson
683. Comparative Economic Systems. (3:3:0) S.	Staff
696, 697, 698. Research. (Arr.) A.W.S.	Staff
699. Thesis for Master's Degree. (Arr.) Arr.	Staff
These courses also count in Economics:	
Business Management 573. Industrial Quality Control. (3:4:0)	
Agricultural Economics 530 Intermediate Statistics (2.2.0)	

## **Educational Administration**

Professors, Burrup, Clarke, Moffitt, Morrill, Oakes (chairman, 126 McKay), Woolf.

Associate Professors: Barnett, J. N. Eastmond, Rigby.

Agricultural Economics 531. Advanced Statistics. (3:3:0) Agricultural Economics 580. Agricultural Policy. (3:3:0)

#### Requirements

The department offers graduate courses required for the preparation, certification, and professional development of school administrative and supervisory personnel. Academic work is available for those preparing for professional service in the areas of general administration—(including the school superintendency, director of educational research, administrative assistants, and others), the school principalship (elementary and secondary), and general supervision (supervisor, director of instruction, curriculum director, and others).

Admission to the department with full graduate status is contingent upon

the following:

1. Completion of 33 hours of Education.

2. Compliance with admission requirements of the Graduate School.

3. Evidence of the student's ability to do satisfactory graduate work (to be determined by the faculty of the department).

#### Master's Degrees

The department offers the Master of Science and the Master of Education degrees. Requirements for each degree are outlined elsewhere in this catalog.

It should be noted that a candidate must complete no less than one year as a

teacher before completing the field project.

Majors: Recognizing the need for providing a broad professional background for administrative-supervisory leadership in education, the department has the following policies regarding courses:

All students must complete a core of courses covering general administration, supervision, and research. These include:
 Ed. Adm. 600 (Org. and Adm. of Public Schools)
 Ed. Adm. 665 (Supervision of Education)
 E.R.S. 641 (Ed. Research and Thesis Writing)

 A course in curriculum building (Instruction 631 or 656) and a course in the history or philosophy of education (Ed. Phil. 604) are strongly recommended. 3. Students interested in general administration should take Ed. Adm. 610 (Public School Finance), Ed. Adm. 626 (School-Community Relations), and such other courses as may be selected by the student and his adviser.

Those interested in administrative-supervisory positions should take Ed. Adm. 738 (The Group Process in Ed. Adm.), and such other courses as may be selected by the student and his adviser.

Those interested in the principalship, elementary or secondary, should take Ed. Adm. 631 (The Elementary School Principalship), or Ed. Adm. 644 (Work of the Secondary School Principal), and such others as may be selected by the student and his adviser.

Minors: Those minoring in the department should take Ed. Adm. 600, and Ed. Adm. 665, and nine additional hours in courses to be selected by the stu-

dent and his adviser from offerings in the department.

#### **Doctor of Education Degree**

The department of Educational Administration offers a major field for the Doctor of Education degree requiring 45 hours of work in graduate courses to be selected under the direction of the Graduate Committee of the college or the advisory committee when it is formed, and not to include independent study, individual research, or seminars. Courses from which the 45 hours may be selected are as follows: Administration 600, 610, 619, 626, 631, 644, 651, 654, 665, 673, 700, 712, 723, 730, 737, 738, 748, 749, 750, 786; E.R.S. 653.

Three supporting fields are required for the major in educational administration. The student must complete 60 hours of work in the supporting fields with not less than 15 hours in any one of the three fields. He will select his courses under the direction and with the approval of his committee, from those courses

listed under the following fields.

#### THE EDUCATIONAL PROGRAM AND ITS IMPROVEMENT

Curriculum: Instr. 622, 631, 656, 682; Rel. Ed. 605, 606, 609, 610. Articulation: Ed. Phil. 662; Instr. 450. Instruction: Instr. 605, 608, 623, 635, 641, 642, 644, 667, 670, 672, 673, 684; Art 668; Eng. 669; Journ. 674; Rel. Ed. 603, 604, 607, 608; Music 615, 616; Evaluation: E.R.S. 610, 612.

#### THE STUDENT AND HIS PARTICIPATION IN THE SCHOOL

Human Behavior: (Learning) E.R.S. 601, 602, 606; Psych. 365, 540, 560, 611; (Adjustment) E.R.S. 611, 620, 621, 622, 625, 652, 660, 661, 665, 666; Psych. 440, 680, 742.

THE SCHOOL AND THE SOCIAL ORDER

Structure and Function of Social Institutions: Soc. 402, 423, 426, 440, 449, 590, 686; Pol. Sci. 335, 605; Community Relations: Adm. 626; Soc. 344. Educational

Values: 602, 604, 605, 615, 621, 622, 631, 642, 662.

The student will be tested soon after his admission for familiarity with certain background fields of significance to education. The tests to be included are: (1) Scholastic aptitude, (2) Vocational interest, (3) Personality, (4) Effectiveness of expression, (5) General educational background, (6) Professional educational background.

Field Project and Report

The student must work out a project for the improvement of a program of administration or instruction, specifically planned for a position which he will

occupy in the field for not less than one year.

The position and the project will be approved by his advisory committee, after passing the comprehensive examination. The position to be used for this field project must be one in which the student has responsibility for the area in which he will work out his project. He will be employed for pay and, therefore, be under the supervision of his employer as well as his major professor during the field work on the project.

**Graduate Courses** 

619. Personnel Problems of the School Staff. (3:3:0) A. Barnett, Eastmond Eastmond, Moffitt, Morrill Morrill, Oakes 626. School-Community Relations. (3:3:0) A. The Elementary School Principalship. (3:3:0) S. 644. Work of the Secondary School Principal. (3:3:0) W. Clarke, Morrill, Woolf 651. Administration of Auxiliary Services. (3:3:0) W. Barnett 654. Administration of Pupil Personnel. (3:3:0) S. 665. Supervision of Education. (3:3:0) A.W.S. 673. School Law. (3:3:0) W.S. Burrup, Oakes Clarke, Moffitt, Woolf & Barnett, Burrup, Oakes Staff 6 690, 691, 692. Seminar. (1-3:1-3:0 ea.) A.W.S. 693, 694. Independent Readings. (1-3:3-9:0 ea.) A.W.S. 696, 697. Independent Research. (1-3:3-9:0 ea.) A.W.S. Staff 6 Staff 6 698. Field Project. (Arr.) 699. Thesis for Master's Degree. (Arr.) Arr. Staff Staff The Organization of Schools. (2:2:0) W. Staff

712. The Junior High School. (3:3:0) A. 723. The Senior High School. (3:3:0) W. Clarke, Woolf Clarke, Woolf

730. Business Administration of the Public Schools. (3:3:0) S. Burrup 737. Research and Survey Procedures in Educational Administration. (3:3:0) S.

Morrill, Oakes 738. The Group Process in Educational Administration. (3:3:0) W. Moffitt, Morrill

748. College and University Organization and Administration. (3:3:0) A. Oakes 749. Evaluation and Accreditation of Educational Institutions. (3:3:0) W.

Oakes, Woolf Morrill 750. Public School Building Programs. (3:3:0) A.S.

786. Problems of Taxation and Financial Support of Public Institutions. (3:3:0)Burrup, Eastmond W. Staff

798. Doctoral Field Project. (Arr.)

610. Public School Finance. (3:3:0) A.W.S.

Burrup, Eastmond, Morrill, Oakes Barnett, Burrup, Eastmond, Morrill

## **Educational Philosophy and Programs**

Professor: Woodruff.

Assistant Professor: Alley (chairman, 202 McKay).

#### Requirements

The department currently is organized to provide service courses for graduate students in other areas of the college and university. Normally students do not major in subject areas of the department; therefore, a major is not provided at the master's level. A minor in this field is provided for graduate students.

Graduate students enrolling in the area of Philosophy of Education are expected to take first the basic course in Ed. Phil. 604. Variations to this must be

approved by the department chairman.

#### Courses

#### Philosophy of Education

602. Educational Values and the Experienced Teacher, (3:3:0) Su. Alley, Ovard 604. Comparative Current Educational Philosophies. (3:3:0) A.W.S. Alley 605. Educational Thinkers and Contemporary Issues. (3:3:0) W. Alley

615. Educational Classics. (3:3:0) S.

## Alley

#### History of Education

621. History of Education in Europe and the Near East. (3:3:0) A. Alley, Ovard 622. History of Education in America. (3:3:0) W. Alley, Ovard

631. Education in a World Setting. (3:3:0) A. Ovard

#### The School in the Social Order

642.	Education	in	the	Social	Order.	(3:3:0) A	

Ovard

#### **Educational Objectives and Programs**

#### 662. Philosophy of Program Planning. (3:3:0) S.

Woodruff

#### **General Courses**

690, 691.	Seminar. (1-3:1-3:0 ea.) A.W.S.	Staff
693, 694.	Independent Readings. (1-3:3-9:0 ea.) A.W.S.	Staff
696, 697.	Independent Research. (1-3:3-9:0 ea.) A.W.S.	Staff
698. Field	Project. (Arr.)	Staff
699. Thes	is. (Arr.) Arr.	Staff

### Educational Research and Services

Professors: Egbert (chairman, 254 McKay), Lloyd, Reid, Romney, Woodruff. Associate Professors: S. Clark, Downing.

Assistant Professors: J. M. Harris, Jensen, Krider, Parker.

Instructor: Wilson.

#### **Fields**

Educational Psychology, School Psychology (with Psychology Department), Personnel and Guidance, Special Education.

#### Requirements

The responsibility for satisfying the general regulations for advanced degrees, as outlined by the Graduate School, lies with the student. For a complete description of programs and for details regarding requirements, including testing, for admission to the department, the student should contact the Chairman of the Department of Educational Research and Services prior to or at the time of application for admission to the Graduate School.

Educational Psychology: Full graduate standing in educational psychology is contingent on elementary or secondary certification plus twenty hours of psychology of which at least fifteen must be in basic psychology courses.

Master's degree: The student must complete at least 23 hours of course work including: E.R.S. 541, 550, 560, 601 or 602, 610 or 611, 620, 641. He must also write a thesis and pass a final oral examination.

Personnel and Guidance: Students seeking a graduate degree in personnel and guidance should have a suitable background of course work in some field such as psychology, sociology or human development and family relationships.

Master's degree: The student must fill the following requirements: Except with the approval of the department, the student must be certified prior to completing the master's degree. If he has not already completed the following courses or their equivalents prior to entering the graduate program, the student must take, in addition to the regularly prescribed courses: E.R.S. 540 and 550 and Psychology 111 and 378. The student must complete the following courses: E.R.S. 611, 620, 621, either 622 or 625, 641, 651, 670, 672, 690 or 691 or 692, and Psychology 640. He must also write a thesis or field project and pass a final oral examination.

School Psychology: This program is offered jointly with the Psychology Department. To be admitted to this program the student must have completed, or must complete in addition to the specified courses, the following: elementary or secondary certification, E.R.S. 540, 550, and 560 and Psychology 111, 360 and 365 or 311, 378, 445, 320 or 321, 540, 550 and 185.

Master's degree: The student must complete the following courses: E.R.S. 606, 611, 612, 620 and 630; Psychology 640, 641, 740 and 741; either E.R.S. 601 or 602 or Psychology 560 and nine quarter hours of practicum—six in E.R.S. and three in Psychology. (Those students majoring in Psychology take six hours c Psychology and three hours of E.R.S. practicum). He must also write an acceptabl thesis based on original research.

Special Education: The Department of Educational Research and Service offers a master's degree in special education. In this program the teacher i prepared for work with children with motor handicaps, children with intellectua handicaps, children with visual handicaps, and children with academic handicaps. To be admitted to graduate work in Special Education, the student mus have a valid teaching certificate plus appropriate experience.

Master's degree: The student must complete the following courses: E.R.S 560, 660, 668 and 674 and Instruction 626 plus appropriate courses in an area o specialization. He must also write an acceptable thesis based on original re

search.

## Advanced Undergraduate or Graduate Courses

520. Group Guidance Techniques for Teachers. (3:3:0) A.S.
540. Statistical Methods. (3:3:0) A.
541. Advanced Statistics. (3:3:0) S. Prerequisite: E.R.S. 540.
550. Guidance Services in Public Schools. (3:3:0) A.W.S.

Downing, Jensen, Parker 560. Introduction to Education of Exceptional Children. (3:3:0) A.W.S.

Krider, Wilson

561. Standard English Braille. (3:3:0) Arr. Staff 562. Advanced Standard English Braille. (3:3:0) Arr. Prerequisite: E.R.S. 561.

563. Education of the Visually Handicapped. (3:3:0) Arr. Prerequisite: consent of instructor.

564. Social Aspects of Handicapping Conditions. (3:3:0) S. Prerequisite: consent of instructor.

Krider, Wilson

601. Advanced Educational Psychology: Problems of Learning in the Elementary School. (2:2:0) W. Prerequisite: E.R.S. 305. Egbert, Harris 602. Advanced Educational Psychology: Problems of Learning in the Secondary

02. Advanced Educational Psychology: Problems of Learning in the Secondary Schools. (2:2:0) S. Prerequisite: E.R.S. 305.

Harris

606. Behavior Problems in the Schools. (3:3:0) A. Prerequisite: E.R.S. 305, 550.

Downing

610. Educational Tests and Measurements. (3:3:0) Arr. Downing, Harris 611. Test Techniques in Guidance. (3:3:0) A. Prerequisite: E.R.S. 550. Jensen 612. Diagnosis of Achievement Difficulties (3:3:0) W. D.

612. Diagnosis of Achievement Difficulties. (3:3:0) W. Prerequisites: E.R.S. 610 or 611.

Harris, Krider

Counseling Theory and Practice. (3:3:0) A. Prerequisite:

E.R.S. 550.

Country and Diagnosis. (3:3:0) W. Prerequisites: E.R.S. 550, 611, and 620.

Downing, Jensen, Reid Proceedings of the Case Study and Diagnosis. (3:3:0) W. Prerequisites: E.R.S. 550, 611, and 620.

622. Group Techniques for Counselors. (3:3:0) W. Prerequisites: E.R.S. 550 and 620.

624. Industrial Counseling. (3:3:0) Arr. Prerequisites: E.R.S. 550, 620, 651.

625. Advanced Counseling Theory. (3:3:0) W. Prerequisites: E.R.S. 550 and Downing, Parker, Reid

630. Corrective Teaching Techniques. (3:3:0) S. Prerequisites: E.R.S. 612 or consent of instructor.

640. Evaluation of Educational and Psychological Literature. (3:3:0) S.

641. Educational Research and Thesis Writing. (3:3:0) W. Prerequisite: E.R.S. 540.

650. Guidance Workshop. (3:3:0) Arr. Prerequisite: E.R.S. 550. Staff

651. Informational Services in Guidance. (3:3:0) S. Prerequisite: E.R.S. 550.

Clark, Downing

652. Guidance Services in the Elementary School. (3:3:0) S. Prerequisites: E.R.S. 550 and 620.

653.	Administration of Guidance Services. (3:3:0) S. Prerequisites: E.R.S. 550.  Downing, Reid
656.	Student Personnel Services in Higher Education. (3:3:0) S. Prerequisite: E.R.S. 550. Clark, Lloyd
660.	<b>Education of Exceptional Children.</b> (3:3:0) S. Prerequisite: E.R.S. 560 or Psychology 445.
661.	<b>Problems in the Education of Slow-Learning Children.</b> (3:3:0) W. Prerequisite: consent of instructor.
662.	Workshop in Special Education. (6:6:0) Arr. Prerequisite: consent of instructor.
664.	Special Education Services in Public Schools. (3:3:0) Arr. Su. only. Staff
665.	Medical Aspects of Orthopedically Handicapped Children. (3:3:0) Arr. Pre- requisite: consent of instructor.
666.	Problems in the Education of Orthopedically Handicapped Children. (3:3:0) (Not given this year.) Prerequisite: E.R.S. 660. Wilson
667.	Problems in the Education of Mentally Retarded Children. (3:3:0) (Not given this year.) Prerequisite: E.R.S. 660 or consent of instructor. Krider
668.	<b>Observation and Participation in Special Education.</b> (3:2:5) W. Prerequisite: consent of instructor. Wilson
	Practicum in Testing. (3:1:6) A.W.S. Prerequisites: E.R.S. 550 and 611.  Jensen
672.	Practicum in Counseling. (3:1:6) A.W.S. Prerequisites: E.R.S. 550, 611, 620, and 670.
674.	<b>Practicum in Special Education.</b> (6:1:15) S. Prerequisite: consent of instructor. Krider, Wilson
675,	676. Practicum in School Psychology. (3:1:6 ea.) Arr. Prerequisite: consent of instructor. Staff
690,	691, 692. Seminar. (1:1:0 ea.) A.W.S. Staff
	694, 695. Independent Readings. (1:3:0 ea.) A.W.S. Staff
	697. Independent Research. (1:3:0 ea.) A.W.S. Staff
698.	Field Project for Master's Degree. (Arr.) A.W.S. Staff
	Thesis for Master's Degree. (Arr.) Arr. Staff
	English
	9
A	Professors: P. Christensen, Jacobs, Rice, Young. Associate Professors: Britsch (chairman, 308 McKay), Cheney, B. Clark, D. Farnsworth, Hart, C. Larson, Monson, Spears, O. Tanner. Assistant Professors: M. Clark, Craig, McKendrick, Olson, Smart, Thomas, Thomson, West, Wood.
	Requirements
in a litera	A graduate may major in either American or English literature; he may minor subject outside the English department or in English literature, American ture, or language.
a h	The following courses must be included:  615 Bibliography and Methods of Research 2 hours  5 bours  5 hours
asan	The following courses must also be included if the student did not have them undergraduate:
а	. 521 The History of the English Language
dent topic	o. 550 The Criticism and Appreciation of Literature
1	different areas of English or American language or literature and on topics
dema	different areas of English or American language or literature and on topics nding research, criticism, or both; (3) two long papers written in two difteres of English or American language or literature and on topics de-

manding research, criticism, or both, and one long paper in the area of creative

writing.

The work done under any of the above three options is under the direction of the student's advisory committee and must fulfill all of the requirements of form, date of submission, and binding that apply to regular master's theses.

#### Remedial Course

99. Problems in Thesis Writing. (0:2:0) A.W.

Staff

Staff

Staff

#### Advanced Undergraduate or Graduate Courses

521.	History of the English Language. (5:5:0) S.	Chr	istensen
525.	Old English. (5:5:0) A.		Young
<b>526.</b>	Middle English. (3:3:0) S.	Christensen,	Monson
541.	English Drama to 1642. (3:3:0) A.		Young
542.	Restoration and Eighteenth Century Drama. (3:3:0)	W.	Rice
543.	Modern English and American Drama. (3:3:0) S.		Tanner
<b>550.</b>	The Criticism and Appreciation of Literature. (5:5:0	) A. Hart,	Thomas

552. The Renaissance in European Literature. (5:5:0) A.

Spears 553. Neo-Classicism in European Literature. (5:5:0) W. Spears 554. Romanticism in European Literature. (5:5:0) S. Spears

#### **Graduate Courses**

	Bibliography and Methods of Research. (2:2:0) A. Beowulf. (3:3:0) W.	Larson McKendrick
	The English Novel. (3:3:0) A.	B. Clark
635.		Smart
641.	English Drama. (3:3:0) S.	Craig
661.	Colonialism and Puritanism in American Literature.	(3:3:0) S. Jacobs
	Romanticism in American Literature. (3:3:0) A.	Thomas
663.	Transcendentalism in American Literature. (3:3:0) W	
		bs, Thomas, Thomson
664.	Realism and Naturalism in American Literature. (3:3:	
		bs, Thomas, Thomson
	Teaching English in Secondary Schools. (3:3:0) S.	West
	The Medieval Period in English Literature. (3:3:0)	
672.	The Renaissance in English Literature. (3:3:0) W.	Larson, Young
673.	Neo-Classicism in English Literature. (3:3:0) W.	Hart, Rice
674.	Romanticism in English Literature. (3:3:0) A.	B. Clark
675.	The Victorian Age in English Literature. (3:3:0) S.	Farnsworth
682.	Shakespeare. (3:3:0) S.	Hart

Family Living, General

Professors: K. Cannon (chairman, 1239 SFLC), S. Morris, Porter.

Associate Professors: Bennion, F. Anderson.

699. Thesis for Master's Degree. (Arr.) Arr.

695. Individual Readings in English. (1-3:2-6:0) A.W.S.

Assistant Professors: G. Christensen, Potter, V. Poulson. This major is designed primarily for high school homemaking teachers who are desirous of obtaining a master's degree which will be of assistance to them in several of the areas which they teach. The classes will be scheduled during the summer in such a way that the student will be able to fulfill the requirements by study in Summer School at the B.Y.U.

#### Requirements

For full graduate standing a student must have a bachelor's degree in family living or home economics or in one of the areas associated with this field; a minimum of 60 quarter hours of credit in courses in family living and/or home economics; background work in social science, biological science, physical science,

and the humanities; an undergraduate average of "B" or better for the last two years of undergraduate work. At least two years of teaching or other work experience are recommended.

Provisional graduate standing may be granted to those who have deficiencies. Students with deficiencies may be required to pass a qualifying examination and/or elect some undergraduate courses for which no graduate credit will be allowed.

The requirements for a master's degree in general family living include:

1. Completion of a plan of course work which will be determined by

1. Completion of a plan of course work which will be determined by the student and his advisory committee.

2. A minimum of 45 quarter hours of course work, plus a thesis. (Total ap-

proximately 51 hours).

3. A thesis and a minimum of 30 quarter hours in two departments, one of which must be human development and family relationships. The other department may be food and nutrition, or homemaking education. Exclusive of the thesis, 12 to 18 hours are to be completed in each of the two departments selected.

A minimum of 15 hours which may be concentrated in a single department or in several other departments in the College of Family Living, or

related fields approved by the graduate's advisory committee.

If food and nutrition is one of the major departments, the student is required to take Food and Nutrition 336 and 564 or their equivalents, which include the prerequisite of Biochemistry. If homemaking education is one of the major departments, an undergraduate major in homemaking education or its equivalent will be required.

The major professor is to be selected from the department in which the thesis project is located and the minor professor from the other department

selected in the major.

#### **CLOTHING AND TEXTILES**

#### Advanced Undergraduate or Graduate Courses

560. Advanced Textiles. (3:3:3) A. Prerequisites: Clothing and Textiles 260, general and organic chemistry. Potter 590. Readings. (2:2:0) S. Prerequisite: minimum of 17 hours of clothing and

Readings. (2:2:0) S. Prerequisite: minimum of 17 hours of clothing and textiles.

594. Special Problems in Textiles. (Arr.) A.W.S. Staff 595. Special Problems in Clothing Construction. (Arr.) A.W.S. Staff

#### ECONOMICS AND MANAGEMENT OF THE HOME

#### Advanced Undergraduate or Graduate Courses

580. Readings in Economics and Management of the Home. (2:2:0) Prerequisite: 16 hours of Economics and Management of the Home. Staff

590. Problems in Management of the Home. (Arr.) Prerequisites: 18 hours of Economics and Economics and Management of the Home and consent of instructor and dean.

595. Problems in Economics of the Home. (Arr.) Prerequisites: 18 hours of Economics and Economics and Management of the Home and consent of instructor and dean. Staff

#### FOOD AND NUTRITION

See Food and Nutrition Department offerings for work available.

#### HOMEMAKING EDUCATION

#### Graduate Courses

	Graduate Courses	
664.	Curricula in Homemaking. (2-3:3:0) Su.	Staff
666.	Teaching Home Economics in Secondary School. (3:3:0) Su. 1960.	Staff
668.	Evaluation in the Teaching of Homemaking. (2-3:3:0) Su.	Staff
670.	Supervision of Student Teachers in Homemaking. (2-3:3:0) Su.	Staff
672.	Adult Education in Homemaking Education. (2-3:3:0) Su. 1960	Staff
680.	Methods of Research in Homemaking Education. (2-3:3:0) Su.	Staff
690.	Independent Project in Homemaking Education. (1-4:4:0) Su.	Staff
694.	Graduate Seminar in Homemaking Education. (1:1:0) Su.	Staff

Field Project. (Arr.) Su.

sign 680.

Thesis for Master's Degree. (Arr.) Su. 699.

Staff Staff

#### HOUSING AND DESIGN

#### Advanced Undergraduate or Graduate Courses

535. Performance Testing of Laundry Equipment. (3:2:3) S. Su. Prerequisites: Clothing and Textiles 260 and Housing and Design 135 or 335. Recommended prerequisites: Clothing and Textiles 560 and Economics and Management of the Home 350.

590. Special Problems. (1-3:0:3-9) A.W.S. Prerequisite: permission of instructor Staff and chairman of department.

#### **Graduate Courses**

680. Interior Decoration and Furnishings. (5:5:0) W.Su. Prerequisites: Art 110, Clothing and Textiles 160 and 370, and Housing and Design 120. 687. Problems in Room Decoration. (3:2:2) Su. Prerequisite: Housing and De-Staff

#### HUMAN DEVELOPMENT AND FAMILY RELATIONSHIPS

See Human Development and Family Relationships Department offerings for work available.

### **Food and Nutrition**

Professors: S. Morris, Trunnell. Associate Professor: Bennion (chairman, 2218 SFLC).

#### Requirements

For full graduate standing a student must have completed a bachelor's degree with a major in Food and Nutrition or a closely related field with basic courses in the physical and biological sciences. Students with subject matter deficiencies may be recommended for admission, but these deficiencies must be removed before a degree is granted.

The specific selection of courses for a graduate degree is based upon the student's objectives, interest and preparation. A suitable program is planned in consultation with the major professor. However, all candidates for a Master's degree in Food and Nutrition must have completed the following: general chemistry, 10 credit hours; quantitative analysis, 5 credits; organic chemistry, 5 credits; biochemistry, 5 credits; food bacteriology, 3 credits; general physiology, 5 credits, Food and Nutrition 535, 564, 684 or 685, 696 and 697.

#### Advanced Undergraduate or Graduate Courses

535. Advanced Human Nutrition. (3:3:0) Arr. Prerequisite: Food and Nutrition 336 or equivalent. Morris

564. Experimental Cookery. (4:2:4) W. Prerequisite: Food and Nutrition 264 and Chemistry 284. Bennion

566. Chemistry Applied to Food.. (2:2:0) W. Prerequisite: Chemistry 101. College of Family Living students: Food and Nutrition 264 also. Offered 1960 and alternate years. An understanding of quality in prepared food such as biscuits, muffins, other quick breads, candies, some frozen desserts, vegetables, and canned

products. 568. Chemistry Applied to Food. (2:2:0) S. Prerequisite: Chemistry 103 or 284. College of Family Living students: Food and Nutrition 264 also. Offered 1960 and alternate years.

590. Readings in Food and Nutrition. (2:2:0) S. Prerequisite or concurrent: Food and Nutrition 564 and 336 or consent of instructor. Staff

Special Problems in Food. (1-3:0:3-9) W.S. Prerequisite: permission of instructor and chairman of department. Designed for students who have 594.

completed at least 15 hours in food and nutrition, including Food and Nutrition 590. Special Problems in Nutrition. (1-3:0:3-9) W.S. Prerequisite: permission of

595. instructor and chairman of department. Designed for students who have completed at least 15 hours in food and nutrition, including Food and Nutrition 590.

#### **Graduate Courses**

Recent Advances in Foods. (2:2:0) Arr. Prerequisite: Food and Nutrition 622. 564 or its equivalent.

Recent Advances in Nutrition. (2:2:0) Arr. Prerequisite: Food and Nutri-625. tion 564 or its equivalent.

630. Advanced Child Nutrition. (3:3:0) Arr. Prerequisite: Food and Nutrition 336 and 345 or equivalent.

Science and Experimental Foods. (3:2:2) Arr. Prerequisite: Food and 644. Nutrition 564. Bennion Protein foods; simple collodial systems: gels, emulsions, and foams.

646. Science and Experimental Foods. (3:2:2) Arr. Prerequisite: Food and Nutrition 564. Bennion

Batters, doughs, and starch-thickened products. Science and Experimental Foods. (3:2:2) Arr. Prerequisite: Food and 648. Nutrition 564. Staff

Methods of Research in Nutrition. (2-3:1-2:4-6) Arr. Prerequisite: Food and Nutrition 535. Staff

Methods of Research in Food. (2-3:1-2:4-6) Arr. Prerequisites: Two of the following: Food and Nutrition 644, 646, 648. Staff

Independent Project in Food and Nutrition. (1-4:0:3-12) A.W.S.Su. Prerequisite: Food and Nutrition 684 or 685. Staff

Graduate Seminar in Food. (1-2:2-4:0) Arr. 696. Staff Graduate Seminar in Nutrition. (1-2:2-4:0) Arr. 697. Staff

698. Field Project. (Arr.) Arr. Staff 699. Thesis for Master's Degree. (Arr.) Arr. Staff

## Geography

Assistant Professors: Tuttle (chairman, 366 McKay), Duke, Fisher, Layton, Millett.

#### Requirements

A candidate for a master's degree in geography must meet the requirements for the undergraduate major and must include in his graduate program the following courses: Geography 570, 698 and 699.

### Advanced Undergraduate or Graduate Courses

Western Europe and the Mediterranean. (3:3:0) A. Prerequisite: Geography 531. 430. Duke

532. Eastern Europe and the U.S.S.R. (3:3:0) S. Prerequisite: Geography 430. Tuttle

Layton 560. Industrial Geography. (5:5:0) S. Prerequisite: Geography 223. Layton Urban Geography. (3:3:0) W.

570. Geographic Field Techniques. (3:1:4) S. Staff 580. Geography of Underdeveloped Areas. (3:3:0) W. Prerequisite: consent of Staff instructor.

584. Political Geography. (3:3:0) S. Prerequisite: consent of instructor. Duke Staff 598. Seminar. (1:1:0) A.W.S.

#### **Graduate Courses**

605, 606, 607. Research. (1-2:1-2:0 ea.) A.W.S. For majors only. Staff 611. United States. (3:3:0) W. Prerequisite: Geography 310.
621. South America. (3:3:0) W. Prerequisite: Geography 420.
622. Caribbean Area. (3:3:0) S. Prerequisite: Geography 420. Tuttle Layton Layton

641. Orient. (3:3:0) S. Prerequisite: Geography 440.	Tuttic
690 691 692 Readings. (1:1:0 ea.) A.W.S. For majors only.	Staff
050, 051, 058. Itelangs. (1.2.1.2.2.C.) A W.C. For majors only	Staff
695. Special Problems. (1-3:1-3:2-6) A.W.S. For majors only.	
698. Graduate Seminar. (1:1:0) A.W.S.	Staff
699. Thesis for Master's Degree. (Arr.) Arr.	Staff
Those courses also count in Geography:	
Political Science 580. Foundations of National Power (The Americas).	(3:3:0)
Political Science 380. Political Science (2:2:0)	
Political Science 581. Foundations of National Power (Europe). (3:3:0)	
Political Science 582. Foundations of National Power (Near and Midd	le East).
(3:3:0)	
Political Science 583. Foundations of National Power (Far East and	Pacific).
(3:3:0)	
History 585. Historical Geography of the United States. (3:3:0)	

Tuttle

## Geology

Professors: Bissell, Bullock (chairman, 291 ESC), G. H. Hansen.

Associate Professors: Hintze, K. Rigby.

Assistant Professors: Bushman, Clark, Phillips.

Instructor: Brimhall.

#### **Fields**

Economic Geology and Mineralogy Stratigraphy, Sedimentation, and Paleontology Structural, Field, and Dynamic Geology

#### Requirements

The following courses, or their equivalents from another university, are prerequisite for all geology students who work toward an advanced degree in geology: Geology 111, 112, 113, 251, 252, 253, 311, 312, 313, 460, 470, and 480. A summer field camp, Geology 410, or its equivalent at another institution, is a necessary prerequisite.

The Department of Geology offers training for the master's degree and the degree of Doctor of Philosophy, with specialization in various fields of geology. The graduate student is urged to acquire a broad foundation in geology, and to secure an adequate training in field work before he concentrates on a chosen branch of the subject. To this end certain fundamental course work is recommended for all students. The course offerings are sufficiently varied and complete so that the student, in consultation with his major professor, may select courses according to his needs and inclinations.

It is expected that graduate students will comply with all the general regulations for advanced degrees as outlined by the Graduate School. The responsibility for meeting these requirements rests with the student. Thesis work, intended to be investigative in character, must be of professional caliber. It is expected that the candidate for an advanced degree will make original contributions, develop new ideas, and complete a thesis or dissertation suitable for publication.

The Department of Geology offers instruction in three broad divisions of geology, with the following course offerings under each division: (1) Economic Geology and Mineralogy—Geology 505, 520, 525, 540, 563, 621, 622, 640, 641, 645, 646, 651, 652, 653, 655, 656, 661, 662, 665; (2) Stratigraphy, Sedimentation, and Paleontology—Geology 505, 575, 576, 580, 581, 670, 671, 672, 678, 680, 681, 682, 683, 684, 685, 686; and (3) Structural, Field, and Dynamic Geology—Geology 503, 505, 506, 507, 511, 512, 530, 535, 610, 615, 617, 673.

A student may select any one of the three divisions for a major. He may elect one or both of the remaining divisions for his minor(s). Geology 505 is required of all graduate students, but may apply toward the major. Geology 696, 698, 699, and 799 are variable credit courses commensurate with work completed in each of these areas. A student should not register for Geology 699 or 799 until he has essentially completed his research, and is prepared to write his thesis or dissertation.

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Master's Degree. (For general requirements see Graduate School regulations.) Requirements for a master's degree in geology include: (1) at least twenty-three hours of formal course work in the major field, and at least fifteen hours of formal course work in one or two minor field(s); (2) a general qualifying examination at the beginning of the graduate program; (3) a thesis embodying the results of research under a faculty member's supervision; and (4) a final comprehensive examination on the graduate course work and the research thesis.

Doctor of Philosophy Degree. (For general requirements see Graduate School regulations.) Requirements for a Doctor of Philosophy degree in geology include: (1) a minimum of forty hours of formal course work in the major field, and a

minimum of twenty-five hours of formal course work each in two minor fields (one of the minors may be in a related field outside of the Department of Geology, in which case upper division and graduate courses will be acceptable). (2) one degree or one year of acceptable graduate study at another institution; (3) a comprehensive examination after ninety hours of graduate work, and at least one academic year prior to graduation; (4) a dissertation embodying the results of original research; and (5) at the close of the final year of study, a defense of his dissertation by the candidate before a formally appointed committee.			
Advanced Undergraduate or Graduate Courses			
501. Rocks and Minerals. (3:3:0) S.	Brimhall		
For students other than geology majors.			
5000 5000000000000000000000000000000000	Bushman		
A course designed to acquaint the teacher with methods and pr			
for teaching geology and with sources of information, projects, and	illustra-		
tive materials useful in the classroom.	77		
503. Geology of Utah. (3:3:0) A.	Hansen		
1	Brimhall		
506. Laboratory Techniques. (1:0:2) A.	Rigby		
	Bushman Bushman		
The state of the s	Hansen		
512. Geology of the United States. (5:5:0) W. 520. Petroleum Geology. (5:5:0) A. Prerequisite: Geology 311.	Hansen		
525. Well Logging Methods and Log Interpretation. (4:2:4) S. Prere			
Geology 313 and Physics 113 or 213.	Staff		
530. Engineering Geology. (4:4:0) A.	Hansen		
535. Ground Water. (5:5:0) S.	Hansen		
	311, and		
Physics 113 or 213.	Brimhall		
563. Mining Geology. (3:3:0) S. Prerequisite: Geology 460.	Brimhall		
575. Pre-Cambrian and Paleozoic Stratigraphy. (4:4:0) W.	Hintze		
	Bushman		
	5:3:4) W.		
Prerequisite: Geology 480.	Staff		
581. Invertebrate Paleozoology. (Mollusks through Hemichordates).			
Prerequisite: Geology 480.	Staff		
591, 592, 593. Seminar. (1:1:0 ea.) A.W.S.	Staff		
C J C			

Graduate Courses				
610.	Structural Geology. (4:4:0) A.	Hintze		
615.	Photogeology. (4:2:4) S.	Hintze		
617.	Conducted Field Trips. (5:3:4) S.	Bissell		
621.	Oil Field Development. (3:3:0) W. Prerequisite: Geology 313.	Staff		
622.	Oil Field Production. (3:3:0) S. Prerequisite: Geology 313.	Staff		
640.	Seismology and Seismic Exploration. (4:3:2) W. Prerequisites:	Geology		
	540 and Mathematics 231.	Statt		
641.	Geophysical Exploration (Other than Seismic). (3:2:2) S. Prere	equisites:		
	Geology 540 and Mathematics 231.	Staff		
645.	Geochemistry. (3:2:2) A. Prerequisite: Geology 252.	Staff		

646.	Geochemical Techniques and Mineral Prospecting. (3:2:2) W. Pre Geology 645.	requisite:
051	The state of the s	Phillips
651.	Microscopic Petrography. (4:2:4) W. Prerequisite: Geology 450 or	651.
00%.	Microscopic retrography. (1.2.1) W. 110104 and 100	Phillips
652	Determinative Mineralogy. (4:2:4) A. Prerequisite: Geology 451 of	
000.	Determinative mineralogy. (1.2.2) 11. 110104	Phillips
655.	Igneous Geology. (4:3:2) W.	Bullock
656.	Metamorphic Geology. (4:3:2) S.	Bullock
661.		Bullock
	Non-Metalliferous Deposits. (3:3:0) S.	Bullock
665.		Phillips
670.		Bissell
671.		Bissell
672.		Bissell
673.		Bissell
678.		Bushman
680.		Rigby
681.		Rigby
682	Vertebrate Paleontology. (4:3:2) W. Prerequisite: Geology 480.	Hansen
683.		Rigby
684.		Rigby
	Paleoecology. (4:3:2) S.	Rigby
696.		Staff
698.		Staff
	Thesis for Master's Degree. (1-6:1-6:0) A.W.S.	Staff
	Dissertation for Doctor of Philosophy Degree. A.W.S.	Staff

## **Health Education**

Associate Professor: H. J. Nicholes. Assistant Professors: Geddes (chairman, 238 SFH), Robison, Watters.

#### Requirements

Undergraduate major or equivalent in field and acceptance as a candidate by the chairman of the department.

#### Advanced Undergraduate or Graduate Courses

510. 511. 521. 530. 551.	Health Education Workshop. (1-3:0:11-33) A.W.S. Seminar in Driver Education. (2:2:0) S.Su. Human Metabolic Processes. (5:3:4) A. Evaluation and Selection of School Health Materials. Instructor's Course in First Aid. (3:3:0) S. Field Work in Community Health. (3:6:6) S. School Health Services. (3:3:0) A.S.	(3:3:0)	w.	Staff Leake Geddes Geddes Watters Duerden Geddes
560.	Stimulants and Depressants. (2:2:0) W.			Staff
	Graduate Courses			
	Research Methods in Health Education. (5:5:0) A.	•		Staff

693.	Research in the Health Sciences. (2-8:1-5:5-25) A.W.S.	Stair
	Independent and/or directed research in problems associated	with the
	health sciences. This course gives credit to those graduate students	involved
	in directed or independent research from grant-in-aid, fellowship	, or con-
	tract grant support.	
694.	Seminar in Readings. (2:2:0) A.W.S.	Staff

034. Seminal in Readings. (2.2:0) A. W.S.	Stall
696. Seminar in Problems. (1:1:0) A.	Staff
698. Field Project. (2-6:0:6-20)	Staff
699. Thesis for Master's Degree. (2-6:2-5:0) Arr.	Staff

The following courses also count in Health Education: E.R.S. 520. Group Guidance Techniques for Teachers. (3:3:0)

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sychology 550. Phychology of Personality. (4:4:0) Recreation 537. Philosophy of Recreation. (3:3:0) Sociology 580. Social Relations in Medical Health Organizations. (3:3:0) Loology 661, 662, 663. Advanced General Physiology. (3:3:0 ea.)

## History

Professors: Campbell, Hafen, Poll (chairman, 332 McKay), R. B. Swensen. Assistant Professors: Addy, Fielding, Hunt, D. Jensen. Instructor: Hyer.

#### Requirements

The Department of History offers work leading to the Master of Arts, Master

of Science, and Doctor of Philosophy degrees.

A student undertaking work toward a graduate degree in history is expected o offer an undergraduate major in the subject, or its equivalent. In addition to he documents required by the university for admission to degree-seeking status, the prospective student is asked to provide the department with a term paper or comparable example of his undergraduate written work in history. Unless he has already taken the departmental senior comprehensive examination, as an undergraduate, he is asked to take it prior to admission to degree-seeking status; in either case, a grade of "B" is ordinarily prerequisite for such admission. Where remediable deficiencies in preparation are believed to exist, the department may prescribe undergraduate course work as a condition of admission.

#### Master's Degree

The requirements for a Master of Arts or Master of Science degree in history are the general requirements of the Graduate School.

#### Doctor of Philosophy Degree

The requirements for a Doctor of Philosophy degree in history include the general university regulations on minimum full-time study, time limit, committee supervision and language proficiency of the Graduate School, with these additional provisions:

At least three quarters of required full-time study at Brigham Young University must be consecutive.

Upon completion of the master's degree or at the end of the first year of graduate study, the student must obtain the approval of the department to continue study toward the doctorate.

Course Requirements. Course work in the following areas must be completed:

Historiography and methods of historical research

Methods of teaching history in college

A course in the 600 series in each of the fields offered for examination

Subject Examinations. When, in the opinion of the advisory committee, the student is ready, and in no case earlier than the beginning of the second year of graduate study, he may take the subject examinations in the following sequence:

Written Examinations: The student is required to show familiarity with fundamental historiography and with the basic structure and developments in (1) his field of major emphasis and research, (2) three additional fields of history, and (3) a related field offered in a department other than history. Both hemispheres must be represented in the history fields chosen. The fields of history are:

> Ancient History Medieval History Early Modern European History (1500-1815) Modern European History (1789-present) Latin American History History of Asia United States History (to 1865)

United States History (since 1865)

503. Literary History of the Greeks. (3:3:0) W.

Western American History

Oral Examination: The oral examination, which must be taken not less than six months prior to the awarding of the degree, deals intensively with the factual structure, major concepts and interpretations, and bibliography in the field of major emphasis and research, and reviews also the additional fields of history and the related outside field.

All the written examinations must be satisfactorily completed before the oral examination may be taken. In the event of failure, any examination may be repeated once, not less than one quarter after the unsatisfactory performance. Successful completion of the subject examinations is the basis for advancement

to candidacy for the doctor's degree.

Dissertation. The student must present a dissertation which represents an original contribution to historical knowledge and which shows ability to use sources in a discriminating way. In a final oral examination, he is tested on the historical setting, subject and methods of the dissertation, and is expected to defend its conclusions.

#### Courses

In the Department of History, courses in the 500 series provide systematic coverage of rather broad areas of subject matter through text and library reading, lectures, reports and class discussions. Courses in the 600 series, excepting seminars, develop selected problems within the general areas of the course titles through extensive library reading, reports and class discussions. Seminars require each participant to produce a substantial research paper.

#### **Advanced Undergraduate or Graduate Courses**

Nibley

Swensen

509.	Literary History of the Roman Empire. (3:3:0) S. Nibley
511.	Medieval Germany and the Papacy. (3:3:0) A. (1959-60 and alternate
	years.) Swensen
512.	Medieval Thought and Culture. (3:3:0) (1960-61 and alternate years.)
	Swensen
522.	Nineteenth Century Europe. (3:3:0) (1960-61 and alternate years.) Addy
<b>525.</b>	European Diplomatic History since 1815. (3:3:0) (1960-61 and alternate
	years.) D. Jensen
528.	Modern European Thought and Culture. (3:3:0) W. (1959-60 and alternate
	years.) D. Jensen
	A study of the most influential ideas and intellectual movements, along
	with their varied forms of expression, during the last three centuries.
548.	Culture of Asia. (3:3:0) A. (1959-60 and alternate years.) Hyer
562.	
563.	
572.	American Revolution and the Confederation. (3:3:0) S. Fielding
579.	Contemporary United States History. (3:3:0) W. Prerequisite: History 121
	or equivalent. (1959-60 and alternate years.)
<b>585.</b>	Historical Geography of United States. (3:3:0) W. (1959-60) Staff
<b>589</b> .	Historical Classics. (3:3:0) (1960-61 and alternate years.) Staff

## **Graduate Courses**

606. Greek Thought. (3:3:0) (1960-61 and alternate years.)

918.	Renaissance and Reformation. (3:3:0) A. (1959-60 and alternate year	rs.)
	Ď. J	ensen
621.	Modern Europe. (3:3:0) (1960-61 and alternate years.) D. J	ensen
<b>64</b> 0.	The Far East. (3:3:0) (1960-61 and alternate years.)	Hyer
650.	Latin America. (3:3:0) W. (1959-60 and alternate years.)	Addy
656.		Hafen

670. Colonial America. (3:3:0) A. (1959-60 and alternate years.) Fielding

The New Nation. (3:3:0) W. (1959-60 and alternate years.) Jacksonian America. (3:3:0) (1960-61 and alternate years.) 675. Hunt Fielding 677. Civil War and Reconstruction. (3:3:0) (1960-61 and alternate years.) Poll

dustrial Revolution (3:3:0) S (1959-60 and

010.	American industrial Revolution. (3:3:0) S. (1939-60 and alterna	3,
		Poll
		C. Jensen
690.	Teaching History in College and University. (3:3:0) (1960-61 and	alternate
	years.)	Staff
694.	Seminar in European History. (3:3:0) S.	Staff
695.	Seminar in Western American History. (3:3:0) A.	Hafen
696.	Seminar in United States History. (3:3:0) W.	Staff
697.	Seminar in Utah History. (3:3:0) A.	Staff
698.	Special Readings in History. (1-2:1-2:0) A.W.S.	Staff
699.	Thesis for Master's Degree. (Arr.) A.W.S.	Staff
799.	Dissertation for Doctor's Degree. (Arr.) A.W.S.	Staff
These	e courses also count in History:	
Econ	omics 274. Economic History of the United States. (5:5:0)	
Libra	ry Science 370. Historical Bibliography and Methods of Research.	(3:3:0)
Politi	cal Science 506. History of American Political Thought. (3:3:0)	
Politi	cal Science 522. Contemporary Problems. (3:3:0)	
Politi	ical Science 557. Government and History of Canada. (3:3:0)	
Politi	ical Science 595. American Constitutional Development. (3:3:0)	

## History and Philosophy of Religion

Professor: Nibley.

Associate Professors: R. R. Rich, Yarn.

Assistant Professors: H. Andrus, J. R. Clark, Horsley, G. Larson, Madsen (chairman, 218 S), Riddle, L. M. Rogers.

#### Requirements

The Department of History and Philosophy of Religion offers training leading to the Master of Arts, Master of Science, and Doctor of Philosophy degrees. A student must have adequate preparation on the undergraduate level before beginning work leading to one of these degrees. The admissions committee of the graduate faculty of religion will determine if the student is properly prepared.

Each graduate student must fill all the general regulations and requirements for advanced degrees as outlined by the Graduate School. The responsibility of knowing and fulfilling these regulations and requirements rests with the student.

#### Master's Degree

Before a student is admitted on a degree-seeking basis, the admissions committee of the graduate faculty of religion will carefully study and evaluate his preparation and fitness for a graduate program. After acceptance, the student must select his advisory committee, in consultation with the admissions committee, and must acquire at least 23 hours of formal course or seminar work in his major field and 15 quarter hours of formal course or seminar work in his minor field; write an acceptable thesis embodying the results of research under faculty supervision; and successfully pass an oral examination.

#### **Doctor of Philosophy Degree**

Requirements for the Doctor of Philosophy degree are as follows: The student must complete, with distinction, each of the core courses specified below, ("B" grade or better) or their equivalents: Bible and Modern Scripture 601, 621, 651, 652, 653; History and Philosophy of Religion 310, 425, 531, 532, 533, 571, 572, 573, 581, 582, 583, 611, 612, 613, 632, 651, 653.

Inasmuch as some of the core courses are offered at the undergraduate level, the student may become proficient in these fields of knowledge before commencing his graduate studies. A demonstration of such proficiency through examination will make it unnecessary for the student either to take or repeat a given

course or courses as part of his graduate program.

The student must achieve a thorough mastery of his major, minor, and related fields, a program which will entail at least 60 quarter hours of course work.

Part of this requirement may be included in the required core courses. The student will plan and work out his course work in consultation with his advisory committee; he must also elect either one or two minor fields.

A student who intends to specialize in this department will be required to demonstrate proficiency in the language or languages essential to his research.

Upon completion of two years of graduate study in the doctoral program, the student must pass comprehensive written and oral examinations. These examinations will measure the student's maturity both in the core subjects and in his specialized field. They should be taken not later than three quarters before the degree is awarded. Successful completion of these examinations admits the student to candidacy for the doctoral degree. Should the student fail the examinations, the question of whether or when he may repeat them will be determined by his advisory committee in consultation with the admissions committee. In no case will these examinations be repeated earlier than six months after failure.

The candidate must select a topic in consultation with his advisory committee and write a satisfactory dissertation embodying the results of original research. Thereafter, the candidate must pass an oral examination, at which time he must

publicly defend his dissertation before a formally appointed committee.

## Advanced Undergraduate or Graduate Courses

514.	The Primitive Church. (2:2:0) A.	Nibley	
515.		Nibley	
516.		Nibley	
<b>524.</b>	Social, Economic and Political Thought of Joseph Smith. (3:3:0) A.W	V.S.	
		Andrus	
531,	532, 533. Historical Development of L.D.S. Doctrines and Practices.	(2:2:0	
	ea.) A.W.S. Andrus	s, Rich	
		Iorsley	
<b>545</b> .	Contemporary European Christianity. (3:3:0) W.	Iorsley	
<b>546.</b>	Scholasticism, Humanism, and Mysticism. (3:3:0) S.	Iorsley	
<b>561.</b>	Research Problems in Genealogy. (2:2:0) A.W.S. Prerequisite: Churc	ch Ad-	
	ministration 318.	ennett	
		<b>I</b> adsen	
571.	History of Ancient Philosophy. (3:3:0) A.	Yarn	
	Greek philosophy from Thales to the Sceptics.		
<b>572.</b>	History of Medieval Philosophy. (3:3:0) W.	Yarn	
	Neoplatonism, and Christian philosophy to the Reformation.		
573.	History of Modern Philosophy. (3:3:0) S.	Yarn	
	Philosophical thought from the Renaissance through the 19th Centu	ıry.	
574.	Contemporary Anglo-American Philosophy, (3:3:0) A.	fadsen	
	Men and movements in naturalism and logical positivism.		
<b>579.</b>	Contemporary Continental Philosophy. (3:3:0) W.	Iadsen	
	20th Century developments in existentialism, phenomenology and	Marx-	
	ism.		
581.	Comparative World Religions. (2:2:0) A.	Rogers	
	Hinduism, Jainism, and Sihkism.	Ŭ	
582.	Comparative World Religions. (2:2:0) W.	Rogers	
	Buddhism, Taoism, Confucianism, and Shintoism.	Ŭ	
583.	Comparative World Religions. (2:2:0) S.	Rogers	
	Judaism, Zoroastrianism, and Islam.	Ŭ	
590,	591, 592. Seminar. (Arr.) A.W.S.	Staff	
Graduate Courses			
611.	Advanced Survey of L.D.S. History. (3:3:0) A. Andrus, Larson Covers period 1800-1847.	, Rich	
010	Additional form of the first of		

Andrus, Larson, Rich

Andrus, Larson, Rich

Larson, Rich

612. Advanced Survey of L.D.S. History. (3:3:0) W.

Advanced Survey of L.D.S. History. (3:3:0) S.

621, 622, 623. Special Problems in L.D.S. Church History. (2:2:0 ea.) A.W.S.

Covers the period 1847-1896.

Covers the period 1896 to present.

Staff

Staff

632. Reformation and Counter-Reformation. (5:5:0) S. Horsley Comparative Studies in American Religions. (2:2:0) A. 647. Horsley

New world expansion of Catholic Christianity and the beginnings of Ameri-

can Protestantism.

649.

651.

653.

648. Comparative Studies in American Religions, (2:2:0) W. Horsley Development of denominationalism, causative factors, types of sectspessimism, millenarianism, utopianism.

Comparative Studies in American Religions. (2:2:0) S. Horsley Pentecostalism-Geographical considerations, late 19th and 20th cen-

tury developments and the ecumenical movement.

Seminar in Philosophical Analysis. (3:3:0) A. Seminar in Philosophy of Religion. (3:3:0) V Riddle Madsen

Rasmussen

699. Thesis for Master's Degree. (Arr.) Arr.

799. Doctoral Dissertation. (Arr.) Arr.

## **Human Development and Family Relationships**

Professors: Cannon, Porter (chairman, 1239 SFLC).

Associate Professor: F. Anderson. Assistant Professor: G. Christensen.

Instructor: Kunz.

#### Special Requirements for Advanced Degree in Human Development and Family Relationships

For full graduate standing a student must have a bachelor's degree in human development and family relationships or in one of the areas associated with the field. Provisional graduate standing may be granted to those who have deficiencies. Students with deficiencies may be required to pass a qualifying examination and/ or to take undergraduate courses for which no graduate credit will be allowed.

The College of Family Living carries an affiliation with the Merrill-Palmer School in Detroit. Students interested in various phases of child development, parent education, social service work, marriage counseling, college teaching or extension work in human development and family relationships may apply and be selected to spend one quarter (for master's candidates) or three quarters (for doctoral candidates) in graduate study at the Merrill-Palmer School, with credit applying toward graduation at Brigham Young University. A limited number of graduate assistantships are available each year for work at the Merrill-Palmer School.

#### Master's Degree

(For general requirements see Graduate School regulations)

Requirements for a master's degree in human development and family relationships include a general examination at the beginning of the graduate program to establish the student's mastery of basic undergraduate courses in HDFR; at least 23 hours of formal course work in the human development and family relationships field, and at least 15 hours of course work in a minor field; a thesis prepared under the direction of the student's advisory committee in which he interprets and reports the results of his research work; and a final examination in all aspects of human development and family relationships with the student's research thesis as the focus of attention.

#### Doctor of Philosophy Degree

Requirements for a Doctor of Philosophy degree in human development and family relationships include successful completion of a minimum of three years of full-time study, at least one of which, normally the last, must be at Brigham Young University; an advisory evaluative examination to be administered after the completion of one year of graduate work, to be used in determining a student's qualifications to continue graduate studies and to help plan his program; and a minimum of two graduate courses in each of the following areas: child development, family relationships, research methodology and statistics, and counseling theory and practice; one year of residence at the Merrill-Palmer School in Detroit (one year's study at another institution may be accepted upon approval of the student's advisory committee); comprehensive examinations, both written and oral, covering the general areas of human development and family relationships and the chosen minor fields; work in the major field plus one or two minors in related areas as determined by the student and his advisory committee; a dissertation embodying the results of original research; and an oral presentation and defense of his dissertation before a formally appointed committee.

#### Advanced Undergraduate or Graduate Courses

Advanced Child Development. (5:3:4) W. Prerequisites: HDFR 210, 211. 510. Kunz, Porter Recommended prerequiste: Psychology 321.

Community Factors in the Development of Children and Families. (3:3:0) 570.

S. Prerequisites: HDFR 210, 361, and Sociology 111. Porter The Professional Person and Families. (3:3:0) W. Prerequisites: nine hours in HDFR, psychology and sociology.

Porter
Parent Education. (3:3:0) W. Prerequisite: consent of the instructor. Kunz Porter 575.

580. Introduction to Marriage and Family Counseling. (3:3:0) W. Prerequisite: Anderson

consent of instructor. Readings in Human Development and Family Relationships. (1-3:1-3:0) A. **590.** Staff W.S. Prerequisite: consent of instructor.

Seminar. (2:2:0) S. 592. 595. Special Topics in Human Development and Family Relationships. (1-3:1-3:0)Ā.W.S. Staff

Research Problems and Methods in Human Development and Family Re-596. lationships. (3:3:0) A. Cannon

#### **Graduate Courses**

611. Current Concepts and Research in Child Development. (3:3:0) A. 661. Dynamics of Family Interaction. (3:3:0) W. Prerequisite: HDFR 360.

Porter 663. Critical Problems in Family Life. (3:3:0) W. Prerequiste: HDFR 361.

Cannon

664. Current Concepts and Research in Family Relationships. (3:3:0) W. Porter

666. Problems of Teaching Marriage and Family Relationships in High School. (3:3:0) Su. Prerequisite: a minimum of two years of teaching experience. Staff

667. Problems of Teaching Marriage and Family Relationships in College. (3:3:0)

685. Developmental Use of Play Experiences. (3:3:0) S. Prerequisite: consent of Christensen instructor. Staff

Staff

Staff

Staff

692 Seminar. (2:2:0) A Seminar. (2:2:0) W.

Independent Research. (1-3:1-3:0) A.W.S.

699. Thesis for Master's Degree. (1-6:1-6:0) A.W.S. 780. Marriage and Family Counseling. (3:3:0) S. Prerequisite: E.R.S. 625.

Anderson

781. Case Analysis in Marriage Counseling. (3:3:0) Prerequisite: HDFR 780. Anderson 785, 786, 787. Internship in Marriage Counseling. (3:1:6 ea.) A.W.S. Prerequi-

sites: HDFR 780, 781. Staff 792. Seminar in Marriage Counseling. (3:3:0) S. Staff

794. Special Topics in Human Development. (1-3:1-3:0) A.W.S.

Anderson, Cannon, Christensen, Porter 795. Special Topics in Family Relationships. (1-3:1-3:0) A.W.S.

Anderson, Cannon, Christensen, Porter Staff

797. Doctoral Candidate Research. (3-6:3-6:0) A.W.S. 799. Dissertation for Ph.D. Degree. (Arr.) A.W.S. Staff The following course also counts in H.D.F.R.:

Psychology 550. Psychology of Personality. (4:4:0)

## Instruction

Professor: Callahan.

Associate Professors: Bauer, Campbell, D. Christensen (chairman, 153 Mc-

Assistant Professors: Alder, Babcock, Berryessa, L. Christensen, Crnkovic, Daines, Flandro, Ord, Shirts, Tyndall, Wilcox.

Instructor: Memmott.

## Requirements

Graduate students majoring in the Department of Instruction must give evidence of sufficient background in public school work to enable them to undertake successfully graduate study. A major in this department is designed to provide competence in the general field of curriculum and instruction and to serve specifically the needs of public school supervisors, directors of curriculum, individuals seeking to become master teachers at the elementary or secondary levels, and other public school personnel with particular interests in the instructional area.

#### Curriculum and Instruction

## Graduate Majors and Minors

Graduate Majors are required to take the following courses:

E.R.S. 606. Behavior Problems in the Schools.

E.R.S. 410. Tests and Measurements for the Classroom Teacher.

Instruction 605. Development of Instructional Materials.

Ed. Phil. 604. Comparative Current Educational Philosophies. E.R.S. 601. Advanced Educational Psychology: Problems of Learning in the Elementary School. (Not open to students who have taken E.R.S. 602.)

E.R.S. 602. Advanced Educational Psychology: Problems of Learning in the Secondary School.

(Not open to students who have taken E.R.S. 601.)

Instruction 631. Curriculum Development in the Elementary School. (Not open to students who have taken Instruction 656.)

Instruction 656. Curriculum Development in the Secondary School.

(Not open to students who have taken Instruction 631.) Instruction 646. Development of Instructional Methods in the Elementary School.

(Not open to students who have taken Instruction 676.)

or

Instruction 676. Development of Instructional Methods in the Secondary School.

(Not open to students who have taken Instruction 646.)

Ed. Phil. 662. Philosophy of Program Planning.

E.R.S. 641. Educational Research and Thesis Writing.

Graduate Minors are required to take courses as outlined below:

1. Instruction 631, Curriculum Development in the Elementary School (or Instruction 656, Curriculum Development in the Secondary School) and Instruction 646, Development of Instructional Methods in the Elementary School (or Instruction 676, Development of Instructional Methods in the Secondary School).

One of the following:

Ed. Phil. 604, Comparative Current Educational Philosophies. Ed. Phil. 662, Philosophy of Program Planning.

3. One of the following: E.R.S. 601, Advanced Educational Psychology: Problems of Learning in the Elementary School. (or)

E.R.S. 602, Advanced Educational Psychology: Problems of Learning in

the Secondary School.

E.R.S. 606, Behavior Problems in the Schools.

E.R.S. 410, Tests and Measurements for the Classroom Teacher.

4. A sufficient number of quarter hours in electives chosen by the graduate student in consultation with his minor professor so that the course work in the minor area will total a minimum of fifteen.

#### Courses in General Instruction

605. Development of Instructional Materials. (3:3:1) W. Prerequisite: Instruction Gagon, Memmott, Staff

608. Radio and Television in Education. (2:2:1) S.

Tyndall 610. Advanced Student Teaching for Experienced Teachers. (2-8:1:4-20) A.W.S. Prerequisite: Field experience plus approval of special committee and chairman of department. Application should be made in advance.

Administration and Supervision of Student Teaching. (3:3:0) A.W.S. 612. Staff Staff

614, 615, 616. Analysis of In-Service Problems. (2-5:2-5:0) A.W.S.

#### Courses in Elementary Instruction

529. Directed Observation in Elementary Schools. (3:2:6) A.W.S. Daines, Staff For experienced teachers or secondary majors who wish to obtain an elementary certificate.

543. Overview of Elementary Instruction. (5:5:2) W. (Not for Elementary Instruction Majors.)

Daines, Staff Daines, Staff Designed for secondary teachers and speech majors who wish to obtain an elementary certificate. Also recommended as a refresher for teachers

in-service.

622. Advanced Study in Early Childhood Education. (3:3:0) Arr.

Campbell, Christensen Babcock, Berryessa, Ord

Science in the Elementary School. (3:3:0) S. Alder, Andrus, Staff 624. Arts and Crafts for Elementary Teachers. (2:2:2) Arr. 626. Arts and Crafts for the Handicapped. (2:2:2) W. Wilson, Staff

631. Curriculum Development in the Elementary School. (3:3:0) W.

Campbell, Daines, Ord

Staff

(Not open to students who have taken Instruction 656.) 633. Creative Arts in the Elementary School. (2:2:2) A. Alder, Andrus, Staff

635. Social Studies in the Elementary School. (3:3:0) A. Ord, Staff 641. Language Arts in the Elementary School. (3:3:0) W. Babcock,

Christensen, Ord, Staff 642. Reading in the Elementary School. (3:3:0) W. Daines, Staff

Arithmetic in the Elementary School. (3:3:0) W. Babcock, Berryessa 646. Development of Instructional Methods in the Elementary School. (3:3:0) Daines

(Not open to students who have taken Instruction 676.)

#### Courses in Secondary Instruction

656. Curriculum Development in the Secondary School. (3:3:0) A.

Callahan, Christensen, Flandro, Staff

(Not open to students who have taken Instruction 631.)

659. Senior High School Curriculum Workshop. (3:3:0) S.

Callahan, Christensen, Flandro, Staff 661. Junior High School Curriculum Workshop. (3:3:0) W.

663. Directing Out-of-Class Activities in Secondary Schools. (3:3:0) S.

Callahan, Christensen, Flandro, Rigby Teaching of Reading in the Secondary Schools. (3:3:0) W. Staff

Teaching Mathematics and Science in Secondary Schools. (3:3:0) W. Staff

Teaching Social Studies in Secondary Schools. (3:3:0) S. Staff Teaching Speech in Secondary Schools. (3:3:0) W. Staff

676. Development of Instructional Methods in the Secondary School. (3:3:0) S

(Not open to students who have taken Instruction 646.)

## Courses in College Instruction

The Junior						Staff
			Instruction.		W. Prerequisite:	Staff
684.	eaching	in riigher	Education.	(0:1:5)	Frerequisite:	Staff

#### Courses in Special Study

190, 691. Seminar. (1-3:1-3:0 ea.	.) A.W.S.	Staff
593, 694. Independent Reading.	(1-3:1-3:0 ea.) A.W.S.	Staff
696, 697. Independent Research.	(1-3:1-3:0 ea.) A.W.S.	Staff
698. Field Project. (Arr.) Arr.		Staff
699. Thesis for Master's Degree.	(Arr.) Arr.	Staff

The following courses also count in Instruction:

Art 668. Teaching Art in Secondary Schools. (3:3:0)

English 669. Teaching English in Secondary Schools. (3:3:0)

Homemaking Education 666. Teaching Home Economics in the Secondary Schools. (3:3:0)

Journalism 674. Teaching Methods in Journalism. (3:3:0) Library Science 563. Modern Library Practices. (3:3:0)

Library Science 565. Selection and Use of Library Materials for the Elementary School. (3:3:0)

Library Science 567. Selection and Use of Materials for the Secondary School. (3:3:0)

Library Science 571. Bibliography of the Sciences. (3:3:0) Library Science 572. Bibliography of the Humanities. (3:3:0) Library Science 573. Bibliography of the Social Studies. (3:3:0)

Library Science 590. History of Books and Development of Libraries in our Civilization. (3:3:0)

Library Science 650. Problems in Acquisition and Organization of Library Materials. (3:3:0)

Music 615. Vocal Methods, Materials, and Resources. (3:3:0)

Music 616. Instrumental Methods, Materials, and Resources. (3:3:0)

## **Journalism**

Professor: O. R. Smith (chairman, 160 SSC).

Assistant Professor: Butterworth. Instructors: Carle, Richards.

#### Requirements

The department of Journalism offers work leading to the Master of Arts or Master of Science degree. Prospective majors are advised to consult the chairman of the department concerning required background for graduate study in this field. Those with deficiencies may be required to pass a qualifying examination or to take undergraduate courses which may be needed.

## Advanced Undergraduate or Graduate Courses

561.	Public Relations. (3:3:0) A.	Butterworth
564.	Public Opinion Polls and Surveys. (3:3:0) Offered 1960-61.	Smith
	Industrial Magazine Editing. (3:3:0) W.	Richards
571.	Magazine Article Writing and Analysis, (3:3:0) S.	Staff

#### **Graduate Courses**

671.	Research Methods in Mass Communications. (3:3:0) A.	Carle
672.	Mass Communications and Society. (4:4:0) W.	Carle
674.	Teaching Methods in Journalism. (3:3:0) Su.	Carle
	Teaching methods for journalism in the secondary school and	junior

college; planning and supervising school newspapers.

676. School Yearbook and Magazine Production. (2:2:0) Su. 1960 and alternate Staff years. 690. Seminar in Mass Communications. (Arr.) S. 691, 692, 693. Special Studies in Journalism. (Arr.) A.W.S. Staff Staff 694. Readings in Mass Communications. (Arr.) A.W.S. 699. Thesis for Master's Degree. (Arr.) A.W.S. The following courses also count in Journalism: Staff Staff Business Management 555. Problems in Advertising. (5:5:0) Instruction 608. Radio and Television in Education. (2:2:1)

## Languages

Professor Emeritus: Cummings.

Professors: de Jong, Lee (chairman, 326 McKay), Nibley, Rogers, Watkins.

Associate Professors: Anderson, Taylor, Wilkins.

Assistant Professors: Clark, Valentine. Instructor: Gibson.

#### **Fields**

French, German, Greek, Latin, Spanish

#### Requirements

For full graduate standing in French, German, and Spanish, students must have completed courses 101, 102, 103, 201, 202, 203, 204, 321, 322, 323, 441, 442, 443 in the language chosen as a major, or have an equivalent background. No provisional admission may be granted on a lesser background. Minors in these fields must have completed courses 101, 102, 103, 201, 202, 203, and 204, or have a fluent reading knowledge of the language elected. For information concerning Greek and Latin, consult the chairman of the department.

The major is in the language and literature of any one of the following

languages: French, German, Spanish, Latin, and Greek. The minor may be in a second language or in another department, subject to the approval of the ad-

visory committee.

#### French

#### Advanced Undergraduate or Graduate Course

511. Materials and Techniques in Teaching French. (3:3:0) A. Prerequisite: French 323 or consent of instructor. Clark, Lee

## **Graduate Courses**

601.	French Composition and Conversation. (3:3:0) S.	Clark, Lee
621.	Introduction to Romance Philology. (3:3:0) A.	Clark
622.	Old French Morphology and Phonology. (3:3:0) A.	Clark
631.	Old French Literature. (3:3:0) W.	Clark
633.	French Literature of the Renaissance. (3:3:0) S.	Clark
634.	French Literature of the 17th Century. (3:3:0) A.	Lee
635.	French Literature of the 18th Century. (3:3:0) W.	Lee
637.	French Literature of the 20th Century. (3:3:0) W.	Lee

651. French Drama of the 19th Century. (3:3:0) S.

652. Modern French Drama. (3:3:0) W.

653. French Novel of the 19th Century. (3:3:0) S.

654. Modern French Novel. (3:3:0) A.

641. Moliere. (3:3:0) W.

661. Introduction to French Civilization. (3:3:0) A. 691, 692, 693. French Seminar. (2:2:0 ea.) A.W.S.

699. Thesis for Master's Degree. (Arr.) Arr.

Clark Lee

Clark Clark Lee

> Clark Staff

Staff

Rogers, Watkins

Taylor

## German

# Advanced Undergraduate or Graduate Courses 511. Materials and Techniques in Teaching German. (3:3:0) A.S. Prerequisite:

German 323 or consent of instructor.

542.	Lessing. (3:3:0) A.       Rogers         Schiller. (3:3:0) W.       Rogers         Goethe. (3:3:0) S.       Rogers
	Graduate Courses
601. 637. 651. 654. 656. 658. 661.	Contemporary German Literature. (3:3:0) A. Anderson, Rogers The German Drama. (3:3:0) W. Anderson The German Novel. (3:3:0) W. Anderson The German Novelle. (3:3:0) S. Anderson German Lyric Poetry. (3:3:0) W. Rogers Cultural History of Germany. (3:3:0) W. Watkins Gothic and Introduction to Comparative German Philology. (5:5:0) W. Watkins
667. 668. 691. 694. 699.	Seminar in Philology. (2:2:0) S. Watkins Seminar in Literature. (2:2:0) S. Staff
400	Spanish
	Advanced Undergraduate or Graduate Courses
<ul><li>511.</li><li>561.</li><li>571.</li></ul>	453, or consent of instructor. Taylor
	Graduate Courses
601.	Spanish Composition and Conversation. (3:3:0) A.
621.	Gibson, Taylor, Valentine, Wilkins Medieval Literature. (3:3:0) A. Prerequisite: Spanish 443 or equivalent.  Taylor
622.	Spanish Literature of the 19th Century. (3:3:0) W. Prerequisite: Spanish 443. or equivalent. Gibson, Taylor
	Literature of the 20th Century in Spain. (3:3:0) W. Prerequisite: Spanish 443 or equivalent. Gibson, Taylor
	Hispanic Âmerica Civilizations of the Colonial Period. (3:3:0) A. Valentine, Wilkins
532.	Hispanic American Civilizations of the Modern Period. (3:3:0) W. Valentine, Wilkins
655.	History of the Spanish Language. (3:3:0) W. Gibson Spanish American Poetry. (3:3:0) W. Prerequisite: Spanish 433 or equivalent.
661.	Drama of the 20th Century in Spain. (3:3:0) S. Prerequisite: Spanish 443 or equivalent.
665.	Drama of the Spanish Golden Age. (3:3:0) W. Prerequisite: Spanish 443 or equivalent. Gibson, Taylor
667.	Drama in Spanish America. (3:3:0) W. Prerequisite: Spanish 453 or equiva-

671. Spanish Novel of the 19th Century. (3:3:0) W. Prerequisite: Spanish 443

or equivalent.

- Modern Mexican Novel. (3:3:0) W. Prerequisite: Spanish 453 or equivalent. Wilkins
- South American Novel. (3:3:0) S. Prerequisite: Spanish 453 or equivalent. 673. Wilkins
- 675. Cervantes' Don Quixote. (3:3:0) W. Prerequisite: Spanish 443 or equivalent. Gibson, Taylor, Valentine, Wilkins 681. Short Story in Spanish America. (3:3:0) W. Prerequisite: Spanish 443 or
- Valentine, Wilkins equivalent. Spanish Seminar. (3:3:0) A.W.S. Staff 694. Staff 15
- 699. Thesis for Master's Degree. (Arr.) Arr.

## Linguistics

#### Graduate Course

601. Introduction to Linguistics. (3:3:0) S.

Staff

Nibley

Nibley

Nibley

#### Latin

#### **Graduate Courses**

- 651, 652. Readings in Vulgar Latin. (3:3:0) A.W. Clark 667, 668, 669. Cicero, Virgil; Latin Style and Composition. (3:3:0 ea.) A.W.S. Clark 677, 678, 679. Horace; the Latin Poets; the Latin Dramatists. (3:3:0 ea.) A.W.S. Clark
- 681, 682, 683. The Latin Fathers. (3:3:0 ea.) A.W.S. Prerequisite: consent of Nibley Staff
- 699. Thesis for Master's Degree. (Arr.) Arr.

## Greek

#### Graduate Courses

664. Advanced Readings in Greek. (3:3:0) A. Prerequisite: consent of instructor. Nibley Epic poets: Homer, Hesiod. 665. Advanced Readings in Greek. (3:3:0) W. Nibley Greek dramatists: three plays. Advanced Readings in Greek. (3:3:0) S. Nibley

Lyric poets: Pindar and minor poets.
667, 668, 669. The Greek New Testament. (3:3:0 ea.) A.W.S.
671, 672, 673. Individual Study in Greek. (2-3:2-3:0 ea.) A.W.S.

Nibley 677. Greek Prose Writers. (3:3:0) A. Nibley

Plato: Apology, Crito, Timaeus. Greek Prose Writers. (3:3:0) W. 678. Nibley Attic orators: Lysias, Demosthenes, Isocrates.

Greek Prose Writers. (3:3:0) W. 679.

Greek historians: Arrian's Alexander, Asiatic Legations. 699. Thesis for Master's Degree. (Arr.) Arr.

## Library Science

Berry, Knight (chairman, 185 Library), Rich, Thorne.

Instructors: Flake, Jenson, Nash, Storrs.

The Library Science program of graduate classes is organized to provide opportunity for those students who already have the necessary undergraduate work in library science, but who wish to become more proficient in their work. It will fill the needs of those who wish to renew certificates and enable them to achieve the standards set by the accreditation agencies.

No provision is made for awarding a master's degree in library science under

the present program, but a minor may be taken in this field.

## Advanced Undergraduate or Graduate Courses

000.	Reading Guidance for Young People. (3:3:0) W.Su.	Staff
571.		Staff
72.	Bibliography of the Humanities. (3:3:0) Not given this year.	Staff
	Bibiliography of the Social Sciences. (3:3:0) S.	Staff
590.	History of Books and Development of Libraries in our Civilization.	(3:3:0)
	Su.	Staff

#### **Graduate Courses**

990.	Problems	in Acquisit	ion and C	organization o	Library Materials.	,
lhis	course also	counts in	Library Sc		(Arr.) A.W.S.	Rich Staff
pee	cn 527. Si	torytelling.	(3:3:0)			

## **Mathematics**

Associate Professors: H. J. Fletcher (chairman, 289 ESC), Robinson. Assistant Professors: Fearnley, Karst.

#### Requirements

Prospective graduate majors are required to obtain department approval on their program before registration.

## Advanced Undergraduate or Graduate Courses

521,	522,	523.	Introduction to Stat	tistics. (3:3:0)	Prerequisite: Math 23	3. Staff
541,	542,	543.	Advanced Calculus.	(3:3:0) A.W.S	. Prerequisite: Math 2	234.
						Fletcher

551, 552, 553. Introduction to Topology. (3:3:0) A.W.S. Prerequisite: Math 232. Fearnley

An axiomatic treatment of linearly ordered spaces including properties of closed sets, connected sets, and separable sets; elementary plane topology, metrization, applications to analysis.

#### **Graduate Courses**

DI 4,	010, 010.	mathematical rhysics. (5.5.0 ea.) A.W.S.	Stair
631,	632, 633.	Complex Analysis. (3:3:0 ea.) A.W.S.	Fearnley
641,	642, 643.	Functions of a Real Variable. (3:3:0 ea.) Not given this	year. Staff
647,	648, 649.	Partial Differential Equations. (3:3:0 ea.) Not given the	his year.
			Fletcher
671,	672, 673.	Modern Alegbra. (3:3:0 ea.) A.W.S.	Robinson
681,	682, 683.	Linear Algebra. (3:3:0 ea.) Not given this year.	Robinson
695.	Readings	in Mathematics. (1-3:1-3:0) Arr.	Staff
699.	Thesis for	r Master's Degree. (Arr.) Arr.	Staff
		-	

# Music

Professors: Halliday (chairman, 250 C), de Jong.

Associate Professors: Earl, Gates, Martino, Sardoni.
Assistant Professors: C. Cannon, Cundick, Gulbrandsen, Keeler, H. Laycock, R. Laycock, Nordgren, Wakefield, Weight, R. Woodward.
Instructors: Ballou, Bos, Bradshaw, Brownlee, Curtis, Edlefsen, Fuerstner, Groesbeck, Weinzinger, Wilkes.

## Requirements

Departmental recommendation for full graduate standing is granted to students who possess the baccalaureate degree with a major in music, have at least a "B" average in the last two years of college work, and pass the department qualifying examination. This examination presupposes the equivalent of

MUSIC 78

Music 292 and Music 485. Provisional standing may be recommended for one who has not completed the above requirements. Deficiencies in training must be made up, however, before full standing will be recommended. Students who expect to receive a master's degree in Music Education (Elementary) are not required to take the qualifying examination, but must have the baccalaureate degree in elementary education with a minor in music or its equivalent and at least one year of elementary teaching experience.

Candidates for the master's degree in music education (elementary or second-

ary) must have completed requirements for the appropriate General Teacher's

Certificate.

All graduate students must take Music 635, Musical Research Techniques,

preferably during the first quarter of graduate work.

A student who writes a master's thesis or a doctoral dissertation must take English 99, Problems of Thesis Writing, unless excused by the chairman of his advisory committee.

A minimum total of 45 hours of credit is required for the master's degree: Major music area (including thesis or composition) Minor music area (applied music, music education, musicology, or music theory) 15 hours Electives .....

45 hours

The requirements beyond the bachelor's degree for the Doctor of Philosophy degree include three years of full-time study in musicology, a minor music area (music theory, music education, or applied music), and a related minor field outside of music; and an acceptable dissertation based on original research.

Of the three years of full-time study required beyond the bachelor's degree normally at least two years will be taken at Brigham Young University. Upon recommendation of the advisory committee, a candidate for the Ph.D. degree

may take one of his last two years at another institution.

The Ph.D. candidate must demonstrate proficiency in reading German and at least one other language, preferably French, and is required to show competence in research and writing before work is started on the dissertation.

#### Advanced Undergraduate or Graduate Courses

537x. Music for Elementary School Teachers—Advanced. (3:3:0) Extension course only. Prerequisite: Music 237 or equivalent. Groesbeck 563, 564. Piano Repertoire. (1:2:0 ea.) W.S. Prerequisite: Advanced standing

as a pianist. Fuerstner

565. Piano Pedagogy. (3:3:0) S. Prerequisite: Advanced standing as a pianist.

Methods, materials and problems in teaching piano.

566, 567. Vocal Repertoire. (1:2:0 ea.) W.S. Prerequisite: Advanced standing as a singer.

Weinzinger

568. Vocal Pedagogy. (3:3:0) W. Prerequisite: Advanced standing as a singer.
Gulbrandsen, Weight

Methods, materials, and problems in teaching voice.

588, 589. Composition. (3:3:0 ea.) A.W.S. Prerequisite: Music 292 or 587. equivalent. Fuerstner **Graduate Courses** 

601. Music in the Elementary School. (3:3:0) A. Prerequisite: Music 237 and the equivalent of an elementary education teaching minor in music. Groesbeck

602. Music Education Supervision. (3:3:0) W. Prerequisite: Music 237 and the equivalent of an elementary education teaching minor in music.

Groesbeck 605. Influence of Music on Behavior. (3:3:0) A. Martino Required of all graduate students majoring in music education.

Martino

606. Functional Music. (3:3:0) W. Required of all graduate students majoring in music education. 10. Music Arranging for Small Groups. (3:3:0) W. Prerequisite: Music 292 or equivalent. R. Lavcock May be counted either as music education or music theory.

Music Education in Society. (3:3:0) S. Required of all graduate students majoring in music education.

13. Music Education Management. (3:3:0) A. Martino Required of all graduate students majoring in music education.

15. Vocal Methods, Materials, and Resources. (3:3:0) S. Prerequisite: Music 479 or equivalent. Woodward Instrumental Methods, Materials, and Resources. (3:3:0) W. Prerequisite: 16.

Music 479 or equivalent. H. Laycock

Advanced Conducting. (3:3:2) A. Prerequisite: Music 374, 375, 376, or equivalent.

R. Laycock, Sardoni 20.

25. Summer Music Clinic. (3:4:4 for two weeks during Clinic) Su.

Sardoni, Staff

Martino

May be counted either as music education or applied music.

35. Musical Research Techniques. (2:2:0) A. Earl Required of all candidates who write a thesis or dissertation.

637. History and Literature of Music Through the Renaissance. (5:5:0) A. Prerequisite: Music 485 or equivalent. Wilkes

History and Literature of Music in the Baroque and Classical Periods. (5:5:0) W. Prerequisite: Music 485 or equivalent.

Wilkes

History and Literature of Music in the Romantic and Modern Periods. (5:5:0) S. Prerequisite: Music 485 or equivalent. Wilkes 639. \*Music 637, 638, 639 constitute a core-course in musicology and are required for graduate degree with a major or minor in musicology. 40, 641, 642. Symphonic Music. (2:2:0 ea.) A.W.S. Prerequisite: Music 485 or

equivalent. (Not given in 1959-60) Wilkes

43, 644, 645. Chamber Music. (2:2:0 ea.) A.W.S. Prerequisite: Music 485 or equivalent. Wakefield

647, 648. Operatic Music. (2:2:0 ea.) A.W.S. Prerequisite: Music 485 or 46, equivalent. (Not given in 1959-60) Earl

650, 651. Choral Music. (2:2:0 ea.) A.W.S. Prerequisite: Music 485 or 49, equivalent. Weight, R. Woodward The History of Musical Notation. (2:2:0) W. Prerequisite: Music 485 or 52.

equivalent. (Not given in 1959-60) Staff 53. The History of Musical Instruments. (2:2:0) W. Prerequisite: Music 485 or equivalent. (Not given in 1959-60) Wakefield

Hymnology. (2:2:0) A. Prerequisite: Music 485 or equivalent. 60p. Private Instruction. (2:1:0 ea.) A.W.S. Ten lessons per quarter. Special

Brass: trumpet, cornet, French horn, trombone, baritone, tuba.

Ballou, R. Laycock, Martino Bradley Harp: Wakefield Harpsichord: Keeler

Organ: R. Laycock, Martino Percussion:

Bradshaw, Brownlee, Cannon, Cundick, de Jong, Fuerstner, Gates, Keeler, Wakefield Cannon, Wakefield Io, string bass: H. Laycock, Nibley, Nordgren, Piano:

Recorder: String: violin, viola, 'cello, string bass: Sardoni

Curtis, Earl, Gulbrandsen, Halliday, Weight, Weinzinger, Woodward Woodwinds: flute, oboe, clarinet, saxophone, bassoon:

Bos, Edlefsen, R. Laycock Staff 163. Solo Recital. (3:0:6-10) A.W.S.

Required of all graduate students minoring in applied music. 671, 672. Counterpoint. (3:3:0 ea.) A.W.S. Prerequisite: Music 292 or 170. Cundick, Gates equivalent.

Materials of Modern Music. (3:3:0) S. Prerequisite: Music 292 or equivalent. 375. Bradshaw, Gates

677. Form and Analysis. (3:3:0 ea.) A.W. Prerequisite: Music 292 or 376. Bradshaw, Gates equivalent.

680, 681, 682. Instrumentation and Orchestration. (3:3:0 ea.) A.W.S. Prerequi-Cundick, Gates site: Music 292 or equivalent.

685. History of Music Theory. (3:3:0) W. Prerequisite: Music 292 or equivalent. Nordgren

May count as either music theory or musicology. 686. Pedagogy of Music Theory. (3:3:0) S. Prerequisite: Music 292 or equivalent. Nordgren

May be counted as either music theory or music education.

688, 689. Composition. (3:3:0 ea.) A.W.S. Prerequisite: Music 292 or 687, equivalent. Fuerstner, Gates 692. Seminar in Music Education. (2:2:0) W. Martino

Required of all graduate students majoring in music education.

693, 694. Seminar in Musicology. (1:1:0 ea.) W.S. Prerequisites: Music 485 Cannon, Earl, Wilkes and 635 or equivalent. Required of all graduate students majoring in musicology. Martino

Special Readings in Music Education. (2:1:5) A.W.S.

698. Composition for Master's Degree. (Arr.) A.W.S. Staff Candidates for the master's degree with composition emphasis are required to show ability to compose before work is started on the composition submitted in partial fulfillment of requirements for master's degree.

699. Thesis for Master's Degree. (Arr.) A.W.S. Staff Candidates for the master's degree are required to show competence in

writing and research before work is started on the thesis.

737, 738, 739. The Age of Palestrina. (3:3:0 ea.) A.W.S. Prerequisites: Music 637, 638, 639 or equivalent. (Not given in 1959.60) Staff

740, 741, 742. The Age of Bach. (3:3:0 ea.) A.W.S. Prerequisites: Music 637, 638, 639 or equivalent. Wakefield Wakefield

743, 745. Mozart Through Beethoven. (3:3:0 ea.) A.W.S. Prerequisites:

Music 637, 638, 639 or equivalent.

Wilkes

746, 747, 748. Schubert Through Brahms. (3:3:0 ea.) A.W.S. Prerequisites:

Music 637, 638, 639 or equivalent. (Not given in 1959-60)

Staff

749, 750, 751. Music in the Twentieth Century. (3:3:0 ea.) A.W.S. Prerequisites:

Music 637, 638, 639 or equivalent. (Not given in 1959-60) Wilkes 787, 788, 789. Advanced Composition. (3:3:0 ea.) A.W.S. Prerequisites: Music 687, 688, 689 or equivalent. Fuerstner, Gates

799. Dissertation for the Doctor of Philosophy Degree. (Arr.) A.W.S. Candidates for the doctor of philosophy degree are required to show competence in writing and research before work is started on the disserta-

This course also counts in Music: **Art 501. Aesthetics.** (3:3:0)

# **Physical Education**

Professors: Hart (chairman—men, 222 SFH), Holbrook( chairman—women, 320 WG), Hartvigsen, Kimball.

Associate Professors: Stone, Watts. Assistant Professors: Barney, Soffe. Instructors: Bangerter, Hirst, Jacobson.

#### Requirements

A baccalaureate degree or equivalent in field and acceptance by department graduate committee.

## Advanced Undergraduate or Graduate Courses

511. Administration of High School Athletics. (3:3:0) A. Kimball Physical Inspection. (2:2:0) S. Staff

Problems in Athletic Conditioning and Injuries. (3:2:3) A.W. Fee. Barney Teaching Progression in Individual Sports. (2:2:0) S. Hirst, Soffe

Teaching Progression in Team Sports-Men. (2:2:0) A. Soffe 572. Teaching Progression in Team Sports-Women. (2:2:0) S. Hirst PHYSICS 81

34. Summer Workshop in Modern Dance. (2: ten hrs. daily for six days) Su. Holbrook

Workshop in Modern Dance. (2:5:5) Not given this year.

Supervision in Physical Education. (3:3:0) A.

Seminar in Administration. (3:3:0) W.

Glover, Holbrook, Leake

Advanced techniques.

01.

02.

37. Workshop in Modern Dance. (3:5:5) Not given this year.

Glover, Holbrook, Leake

Staff

Staff

Hartvigsen

#### **Graduate Courses**

JN.		lai tvigseii
03.	Planning and Administration of Facilities. (3:3:0) W.	Kimball
)4.	Intramural Organization and Management. (3:3:0) S.	Staff
05.	Personal and Public Relations in Physical Education, Health and I	Recreation.
	(3:3:0) W.	Hartvigsen
21.	History and Philosophy. (3:3:0) S.	Holbrook
11.	Principles and Practices of Physical Reconditioning. (3:3:0) A. Pr	erequisite:
4	Zoology 164.	Barney
60.	Tests and Measurements in Physical and Health Education. (3:3:	0) S. Pre-
	requisite: Physical Education 464 or equivalent.	Hart
73.	Physical Education in the Elementary School. (2: ten hours da	ily for six
	days) Special one-week summer workshop.	Holbrook
74.	Material and Methods for Secondary Teachers—Men. (3:3:0) A.	Bangerter
75.	Materials and Methods for Secondary Teachers—Women. (3:2:2)	W. Hirst
76.	Curriculum Construction. (3:3:0) W.	Hart
84.	Teaching Progressions in Modern Dance, Advanced. (2:1:2) W.	Staff
92.	Research Methods in Physical Education. (5:5:0) A.	Hart
94.	Seminar in Readings. (2:2:0) A.W.S.	Staff
96.	Seminar in Problems. (1:1:0) W.	Staff
98.	Field Project, Master's Degree. (2-6:2-6:0) A.W.S.	Staff

## **Physics**

Professors: Eastmond (chairman, 287 ESC), H. Fletcher, Gardner, W. Hales, A. Hill, Marshall.

Associate Professors: R. Hales, McNamara.

Assistant Professors: Barnett, Decker, M. Hill, Hoyt, Miller.

Thesis for Master's Degree. (2.6:2-6:0) A.W.S.

The Physics Department offers the degrees of Master of Science (M.S.) or faster of Arts (M.A.) and Doctor of Philosophy (Ph.D.). The master's degree is ften taken by those who intend to continue on for the Ph.D., but it also serves as terminal degree for many who intend to go into industrial or governmental re-earch or into teaching. The Ph.D. is awarded for a high degree of scholarly chievement in the subject matter of physics and in research. It is not granted imply upon completion of certain routine requirements. General requirements or these degrees are outlined by the graduate school. Following are special reuirements relating to the Department of Physics.

## Master's Degree

The basic requirements for the master's degree in Physics are the same as

he general graduate school requirements.

The student who expects to continue into a Ph.D. program would do well o start on it as soon as he enters the Graduate School. He should note, howver, that the minor requirement for a master's degree is different from that or a Ph.D. For the former the minor must be taken outside the department, whereas for the latter it is within the department. If the student takes Math 541, 542, and 543 as a graduate, then this along with Math 617, 618, and 619 will fulfill his minor requirement. If he has taken the Math 541, 542, 543 series as in undergraduate, it may be that he can count the third quarter for graduate credit, in which case he must take Math 617, 618, and 619 and three additional 82 PHYSICS

hours of mathematics to complete the minor requirement for the master's degree A student pursuing a terminal course with the intent of going into research or development work would find the courses listed in item B-2 under the Ph.D. requirements to be profitable. However, he may find it to his advantage to sub-

stitute some more specialized courses or some undergraduate courses where this can be done in conformity with the regulations of the graduate school.

A student pursuing a terminal course with the intent of going into secondary teaching should consider the following program:

Education (the 33 hours required for a teaching certificate)

Physics 551, 552, 553 Physics 511, 512, 513

One additional year's course in Physics. Recommended: Physics 527. 528, 529, Physics 561, 562, 563, Physics 671, 672, 673, or Physics 304

Physics 699

The courses in education would fulfill the minor requirements for this degree. Persons who have already fulfilled these requirements as undergraduates should select some other minor field such as mathematics or chemistry. There are many possibilities for research for master's theses which may be done with equipment on loan from the university away from the campus, e.g. cosmic ray studies meteorological studies, astronomical studies with plates exposed with the university 23-inch telescope. This should make it possible for a student to fulfill his education and physics requirements in one school year with the addition of one or two summers of study.

## Requirements for Doctor of Philosophy Degree

It is expected that the students will meet the general requirements of the Graduate School for advanced degrees. The following special requirements relate to a degree in physics.

#### A. Admission to degree seeking basis.

Study leading to an advanced degree in physics is contingent upon admission to the Graduate School. It is further expected that the students shall have satisfactorily completed the following courses or their equivalent: Physics 211, 212 213, 321, 322, 323, 331, 332, 333, 341, 342, 343, 351, 352, 353, 371, 372, 373, and Math 231, 232, 233, 234, 316, 317, 541, 542, 543. Upon approval by the student's advisory committee, some other advanced mathematics series may be substituted for 541, 542, and 543. A student may remove any deficiencies by special examination or by registering for any of these courses at the outset of his graduate studies and earning A or B grades in them. Credit thus earned may not be applied towards meeting the requirements for the Ph.D. degree.

A written entrance examination covering the general field of the undergraduate physics included in the above named courses must be passed sometime during the first week of the quarter in which the student enters the Graduate School in order that it may be determined whether or not there are deficiencies to be removed. If the student is already planning to remove deficiencies by course work or special examination, he may omit the parts of the test relating to these fields and present passing grades in the courses or in the special examination in

their place.

#### B. Formal Course Work

1. A minimum of 78 hours in approved course work.

The following courses or their equivalent with grades of A or B:

a. Mathematical Physics (Math 617, 618, 619)

b. Introduction to Quantum Theory (Physics 551, 552, 553) c. Advanced Mechanics and Dynamics (Physics 621, 622)

Mathematical Theory of Electriticy and Magnetism (Physics 641 642, 643)

Since the first three of these are prerequisites to many of the other graduate courses, it is desirable that they be taken during the first year of graduate work

- 3. At least 15 hours in each of any two of the following general fields with grades of A or B. One of these should be in the field in which the student plans to do his thesis. The other constitutes his minor.
  - a. Quantum Mechanics
    Courses which will satisfy this requirement are: Physics 657, 658, 659, 757, 758, 759, Chemistry 765, 766, 767.
  - b. Astrophysics
    Courses which will satisfy this requirement are: Physics 527, 528, 529, 623, 627, 628, 629, 653.
  - c. Thermodynamics and Statistical Mechanics Courses which will satisfy this requirement are: Physics 631, 632, 633, 741, 742, 743, Chemistry 661, 662, 663, 761, 762, 763.
  - d. Nuclear Physics
    Courses which will satisfy this requirement are: Physics 651, 652, 653, 751, 752, 753, Chemistry 764.
  - e. Acoustics Courses which will satisfy this requirement are: Physics 561, 562, 563, 564, 565, 566, Electrical Engineering 581, 582, 583, 584, 585, 586, 587.
  - f. Atomic Physics and Spectroscopy Courses which will satisfy this requirement are: Physics 527, 528, 529, 671, 672, 673, 771, 772, 773.
  - g. Solid State Physics
    Courses which will satisfy this requirement are: Physics 631, 632, 633, 681, 682, 683.
- 4. Graduate Seminar for which one may receive 6 hours of credit.

#### C. Examinations

Towards the end of the second year of graduate study the student must ass a series of written and oral qualifying examinations covering the courses in 2 and the two general fields selected under B-3. The outcome of these examinations will determine whether or not he is admitted to candidacy for the Ph.D. egree.

D. Acceptance for Research

Before admission to candidacy, the student must be tentatively accepted as research student by a member of the faculty of the Physics Department. The stuent may become acquainted with research opportunities available by attendance t seminars, lectures, discussions with faculty and other graduate students, etc.

#### E. Dissertation

The student must present a written dissertation embodying the results of riginal research judged by his committee to be suitable in whole or in part for ublication in a national journal.

#### F. Defense of Dissertation

The student must give an oral presentation and defense of the dissertation efore his committee and others designated by his committee.

G. Research fields presently available for original research are:

Acoustics
Astrophysics
Atomic Physics
Gaseous Electronics
High Pressure,

High Temperature
Phenomena
Magnetic resonance
Nuclear Physics
Solid State Physics

## **Advanced Undergraduate or Graduate Courses**

05. Physics of the Atomic Age: Atomic and Nuclear. (5:5:0) Arr. Prerequisite: Physics 304 or equivalent.
Staff

Intended primarily for prospective teachers and non-specialists.

11, 512, 513. Introduction to Theoretical Physics. (3:3:0 ea.) Su. Prerequisite:
Math 317. Hoyt

This course is recommended primarily for students other than Ph.D. can-

didates. 527, 528, 529. Introduction to Astrophysics. (3:3:0 ea.) A.W.S. McNamara 551, 552, 553. Introduction to Quantum Theory. (3:3:0 ea.) A.W.S. Prerequisites: Decker Math 317, Physics 323. 561, 562, 563. Fundamentals of Acoustics. (3:3:0 ea.) A.W.S. Fletcher 564, 565, 566. Acoustical Measurements. (2:0:2 ea.) A.W.S. Prerequisite or concurrent registration: Physics 561, 562, 563. Fletcher **Graduate Courses** 621. Advanced Mechanics. (3:3:0) A.W. Prerequisite: Physics 323. Hoyt Gardner 622. Dynamics. (3:3:0) W. 623. Theory of Relativity. (3:3:0) S. Prerequisite: Physics 622. Hoyt 627, 628, 629. Advanced Topics in Astrophysics. (3:3:0 ea.) Not given this year. Prerequisite: consent of instructor. McNamara 631, 632, 633. Kinetic Theory and Statistical Mechanics. (3:3:0 ea.) Not given Gardner this year. 641, 642, 643. Mathematical Theory of Electricity and Magnetism. (3:3:0) ea.) A. W.S. Prerequisite: Physics 343. 651, 652, 653. Nuclear Physics. (3:3:0 ea.) A.W.S. Prerequisites: Physics 353, Gardner, Hales 553. 657, 658, 659. Quantum Mechanics. (3:3:0 ea.) A.W.S. Prerequisites: Physics Gardner, Hales 553, 622; Math 619. 671, 672, 673. Atomic Physics and Spectroscopy. (3:3:2 ea.) A.W.S. Prerequisite: Eastmond Physics 373. 681, 682, 683. Modern Theory of the Solid State. (3:3:0 ea.) Not given this Decker year. Prerequisites: Physics 333, 553. 691, 692, 693. Seminar. (1:1:0 ea.) A.W.S. Staff 695. Readings in Modern Physics. (1-3:0:0) A.W.S. Staff 696, 697, 698. Classical Experiments. (2:0:2 ea.) A.W.S. Staff 699. Thesis for Master's Degree. (Arr.) Arr. Staff 741, 742, 743. Advanced Topics in Electron Physics. (2:2:0 ea.) A.W.S. Prerequisites: Physics 553, 622, 632, 643. Course content varies from year to year. Examples of topics that might be treated are vacuum electronics, plasma physics, thermonuclear processes, etc. 757, 758, 759. Advanced Quantum Theory. (3:3:0 ea.) Not given this year. Prerequisite: Physics 659. Staff 771, 772, 773. Molecular Physics and Microwave Spectroscopy. (3:3:0 ea.) Not given this year. Barnett 791, 792, 793. Seminar. (1:1:0 ea.) A.W.S. Staff 798. Research for Ph.D. Degree. (Arr.) Arr. Staff 799. Dissertation for Ph.D. Degree. (Arr.) Arr. Staff These courses also count in Physics:

## Political Science

Electrical Engineering 584, 585, 586. Advanced Musical Acoustics. (2:2:0 ea.)

Professors: Grow (chairman, 358 McKay), C. Jensen (emeritus). Associate Professors: Caldwell, Melville, Reeder. Assistant Professors: Jones, Mabey, Riggs.

Electrical Engineering 581, 582, 583. Psycho-Acoustics. (3:3:0 ea.)

Electrical Engineering 587. Architectural Acoustics. (5:5:0)

#### Requirements

For full graduate standing in this field, a student must have completed approximately the equivalent of an undergraduate major.

A minor may be undertaken with somewhat less background, after consultation with the department.

## Advanced Undergraduate or Graduate Courses

4	and another control of the defendance of the def
532. 540.	Public Opinion and Propaganda. (3:3:0) W. Grow Personnel Administration. (3:3:0) A. Staff Administration of American Foreign Policy. (3:3:0) S. Grow Governments of the British Commonwealth. (3:3:0) Not offered this year.
	Government and History of Canada. (3:3:0) W. (1959-60 and alternate years)
<b>56</b> 0.	Governments of Latin-America. (3:3:0) S. (1960-61 and alternate years)  Staff
571. 580.	International Organization. (3:3:0) A. Riggs Development of American Foreign Policy. (5:5:0) S. Staff Foundations of National Power (The Americas). (3:3:0) A. Staff Foundations of National Power (Europe). (3:3:0) W. Staff Foundations of National Power (Near and Middle East). (5:5:0) S. (1960-61 and alternate years.)
583.	Foundations of National Power (Far East and Pacific). (3:3:0) A. (1960-
590. 593.	61 and alternate years)  Staff  Jurisprudence. (4:4:0) S. (1960-61 and alternate years)  Administrative Law of the U.S. (5:5:0) S. (1959-60 and alternate years)
595.	American Constitutional Development. (3:3:0) W. Prerequisite: Reeder Political Science 110.
	Graduate Courses
601.	Modern Political Philosophy. (3:3:0) S. (1960-61 and alternate years)
605.	Roots of American Democracy. (3:3:0) W. (1959-60 and alternate years)  Caldwell
610.	American Political Problems. (3:3:0) A. (1959-60 and alternate years)  Grow
630.	Comparative Public Administration. (3:3:0) S. (1960-61 and alternate years)
635.	State and Municipal Administration. (3:3:0) W. (1959-60 and alternate years)  Staff
650. 651.	<b>Democratic Governments.</b> (3:3:0) W. (1959-60 and alternate years) Riggs <b>Totalitarian Governments.</b> (3:3:0) S. (1959-60 and alternate years) Mabey
665.	
670.	International Relations in the 20th Century. (3:3:0) W. (1959-60 and alternate years)
675.	Modern International Law. (3:3:0) S. (1960-61 and alternate years)  Reeder
690.	
696.	Constitutional Law in the 20th Century. (3:3:0) A. (1959-60 and alternate years)
Econ Econ	e courses also count in Political Science: omics 575. Government Finance. (5:5:0) omics 576. Government and Business. (5:5:0)
	raphy 584. Political Geography. (3:3:0) ory 686. Constitutional History of the United States. (3:3:0)

# **Psychology**

Professor: M. K. Allen (chairman, 1230 SFLC). Associate Professors: Howell, B. W. Robinson, C. Taylor. Assistant Professors: Hardy, J. W. Moffitt, F. R. Wilkinson. Instructor: Drewes. The Department of Psychology offers the following graduate programs leading to advanced degrees: master's degree in general psychology; master's degree for school psychologists, given in collaboration with the Department of Educational Research and Services; Ph.D. in clinical psychology; and a Ph.D. in general psy-

chology.

Prospective graduate students are expected to acquaint themselves with all general regulations for advanced degrees as outlined by the Graduate School. Admittance to graduate work in psychology requires completion of the core courses for the undergraduate major (general psychology, cognitive processes, motivation, elementary statistics, experimental psychology, abilities, and one seminar) or their equivalent. Before a student will be admitted to a degree-seeking status he must demonstrate his competence for graduate work by satisfactory performance on a battery of written examinations to be prescribed by the department.

Requirements include: (1) completion of the required number of hours as stipulated by the general university requirements, including the specific courses required by the department for the school psychologist program, or those prescribed by the student's advisory committee in the general field; (2) a thesis which reports research done under the direction of a committee composed of representatives from the major and minor departments; (3) a successful oral defense of his thesis before his committee and other members of the graduate

faculty.

#### Doctor of Philosophy Degree with a Major in Clinical Psychology

Requirements for the degree of Doctor of Philosophy include: (1) completion of the required courses listed below. (It is expected that the prerequisite courses will be taken without credit where this is necessary to make up deficiencies); (2) a minimum of twenty hours in a minor field in a subject related to and supporting general knowledge in psychology, plus sufficient other hours in psychology (including required courses) or related fields to equal at least 110 hours; (3) comprehensive examinations covering his major and minor fields. No student will be admitted to these comprehensive examinations until he has demonstrated a general breadth of basic knowledge during the first two years of graduate work. Completion of these examinations will be necessary before a person can be formally admitted to candidacy for a degree in clinical psychology. (The examination in the major area need not be taken at the same time as that in the minor area); (4) a dissertation embodying the results of original research of professional caliber, done under the supervision of the advisory committee; (5) completion of one year of internship in a hospital or institution approved by the department.

# Courses Required for a Doctor of Philosophy Degree with a Major in Clinical Psychology

I. General Psychology (22 hours)

A. 585 Physiological Psychology. (5:5:0)

B. 610 Systematic Psychology I: History of Psychology. (4:4:0)
 C. 611 Systematic Psychology II: Psychological Theory. (4:4:0)

D. 612 Systematic Psychology III: Contemporary Problems in Psychology. (4:4:0)

(3:3:0)

2. 720 Seminar: Clinical Problems of Genetic Psychology. (2:2:0)

F. 552 Soc.-Psych. Personality: Culture and Society. (3:3:0)

II. Psychodynamics of Behavior (13 hours)

A. 550 Psychology of Personality. (4:4:0) B. 675 Experimental Psychodynamics. (3:3:3)

C. 540 Abnormal Psychology. (3:3:0)D. 651 Problems in Psychopathology.

III. Diagnostic Methods (19 hours) Prerequisite: Psychology 378.

A. 640 Individual Test Practice: Infants and Children. (5:2:6)
B. 641 Individual Test Practice: Adolescents and Adults. (3:1:4)

C. 740 Introduction to Projective Techniques. (3:3:0)

D. 741 Rorschach Test Practice. (5:2:6)
E. 743 Practicum: Diagnostic Testing. (3:1:6)

- Psychotherapy (15 hours) Prerequisite: Psychology 440.
  - Introduction to Psychotherapy. (3:3:0)
  - B. Individual Psychotherapy: Practicum. (4:2:2) 780
  - Individual Psychotherapy: Practicum. 781
  - Group Therapy: Theory and Practice.

783 Play Therapy: Theory and Practice. (4:2:4)

Research Methods (13 hours)

- A. 574 Advanced Experimental Psychology. (3:2:7)
- B. 670 Advanced Statistics I. (3:3:0)
- Advanced Statistics II. (3:3:0)
- D. 672 Advanced Statistics III. (3:3:0)
- Seminar: Research Problems. (1:2:0) E. 690
- 799 Dissertation.

## Doctor of Philosophy Degree in General Psychology

A program for the Ph.D. in general psychology with some concentration in ne principal branches of the field is offered for the first time this year. The urpose of this program is to furnish advanced training to students who are prinarily interested in research, university teaching, and specialized applications of sychology in areas other than the clinical field.

The candidate for this degree will choose a field of concentration from not ore than two of the following branches: experimental psychology, physiological nd comparative psychology, statistical analysis, psychological measurements, idividual differences, learning, social psychology, personality, and developmental

sychology.

The general requirements are the same as those listed under (1), (2), (3), nd (4) specified for clinical psychology, except that the list of required courses ill include only groups I, II, and V. Additional groups of required courses equivaent in quarter hours to those in groups III and IV will be tailored to the parcular area of concentration chosen by the candidate. The chairman of the canidate's committee will draw up a list of required courses, which he will present the department staff for approval.

## Advanced Undergraduate or Graduate Courses

- Psychology of Aesthetics. (3:3:0) A.S. Prerequisite: Psychology 111.
   Drewes, Taylor Abnormal Psychology. (3:3:0) S. Prerequisite: Psychology 111 and consent 40.
  - of instructor.
- Psychology of Personality. (4:4:0) A.S. Prerequisite: Psychology 111. 50. Moffitt

(Soc-Psych) Personality: Culture and Society. (3:3:0) A. This course may 52. be used for credit either in Psychology or Sociology, but not in both. Hardy

Study of the role of culture and society in the formation and functioning of personality.

54.

Psychology of Religion. (3:3:0) S. Prerequisite: Psychology 111. Allen (Soc-Psych) Group Dynamics. (3:3:0) W. This course may be used for credit either in Psychology or Sociology, but not in both. 55.

Research and theories in group dynamics.

60. Psychology of Learning. (3:3:0) W. Prerequisite: Psychology 111.

- Allen, Drewes Advanced Experimental Psychology. (3:2:7) S. Prerequisite: Psychology 111 74. Drewes, Wilkinson or equivalent.
- 80. Comparative Psychology. (5:5:0) S. Prerequisite: Psychology 111.

85. Advanced Physiological Psychology. (5:5:0) W. Prerequisite: Psychology 111. Drewes, Wilkinson Staff 98. Independent Research. (1-3:1-3:0) A.W.S.

#### **Graduate Courses**

10. Systematic Psychology I: History of Psychology. (4:4:0) A.

Howell

011	C. A seed, Developed H. Developed C. I. Miles (A.A.O.) M.	35.0
		Moft
612.	Systematic Psychology III: Contemporary Problems in Psychology.	(4:4
000	5. M	Tay
	Mental Deficiency. (3:3:0) S.	Al
	Gifted Children. (2:2:0) A. Allen,	
628.	Psychology of the Physically Handicapped. (3:3:0) Not given this y	
040	7 1' 1 1 m 4 m 4' 7 f 4 1 Ch'll (5.0 C) 777 77 71	Tay
640.	Individual Test Practice: Infants and Children. (5:2:6) W. Howell,	
641.	Individual Test Practice: Adolescents and Adults. (3:1:4) S. Howell,	
642.	Special Clinical Testing. (3:1:6) Not given this year. Howell,	
651.	Problems in Psychopathology. (3:3:0) S. Allen, Drewes,	
655.		runn
	Advanced Statistics I. (3:3:0) A. Howell,	
	Advanced Statistics II. (3:3:0) W. Howell,	
672.	Advanced Statistics III. (3:3:0) S. Not given this year.	Mof
675.	Experimental Psychodynamics. (3:3:3) A. Not given this year.	St
680.		bins
<b>69</b> 0.	Seminar: Research Problems. (1:2:0) A.W.S. Not given this year.	St
	Independent Readings. (1-3:1-3:0) A.W.S.	St
699.		St
720.	Seminar: Clinical Problems of Genetic Psychology. (2:2:0) Not giv	
	year. Howell,	
740.	Introduction to Projective Techniques. (3:3:0) A.	Tay
741.	Rorschach Test Practice. (5:2:6) W. Howell, Robinson,	
743.	Practicum: Diagnostic Testing. (3:1:6) S. Not given this year.	St
	Internship in Clinical Testing. (3-6:2:7-16) A.W.S.	St
748.	Internship in Clinical Testing. (3-6:2:7-16) A.W.S.	St
750.	Seminar: Personality. (2:2:0) A. Not given this year.	St
760.	Seminar: Learning. (2:2:0) S. Not given this year.	St
780.	Individual Psychotherapy: Practicum. (4:2:2) A. Not given this year	
781.	Individual Psychotherapy: Practicum. (4:2:2) W. Not given this year	
782.	Group Therapy: Theory and Practice. (4:2:4) Not given this year.	St
783.	Play Therapy: Theory and Practice. (4:2:4) S.	Tay
799.	Dissertation. (Arr.) A.W.S.	St

## Recreation

Sti

Professors: Hart, Hartvigsen, I. Heaton (chairman, 236 SFH). Assistant Professor: A. Heaton.

## Requirements

Undergraduate major or equivalent in field and acceptance by department chairman.

#### Advanced Undergraduate or Graduate Courses

503.	Administration of School and Community Camps. (3:3:0)	S. I. Heat
505.	Administration of Community Recreation. (3:3:0) W.	I. Heat
	Philosophy of Recreation. (3:3:0) A.W.S.	I. Heat
579.	Directed Leadership in Recreation. (2-6:1:6-18) A.W.S.	Prerequisite: co
	sent of department chairman.	I. Heat:

#### **Graduate Courses**

607. The Conduct of Playgrounds. (3:3:0) S.	A. Heat:
609. The Recreation Program. (3:3:0) A.	I. Heat:
683. Workshop in Recreation Dance. (2:2:0) A.	A. Heat:
694. Seminar in Readings. (2:2:0) A.W.S.	I. Heat:

502. Camping Education. (2:2:0) S.

696. Seminar in Problems in Recreation. (1:1:0) W. 698. Field Project. (2-7:2-5:0) A.W.S. 699. Thesis for Master's Degree. (2-6:2-5:0) A.W.S. I. Heat I. Heat: I se courses also count in Recreation:

ruction 624. Arts and Crafts for Elementary Teachers. (2:2:2) ruction 626. Arts and Crafts for the Handicapped. (2:2:2) ruction 663. Directing Out-of-Class Activities in Secondary Schools. (3:3:0)

11th Education 696. Seminar in Problems. (1:1:0) F.R. 510. Child Development II. (5:3:4)

ustrial Education 466. Art Metal Crafts. (2:0:4)
sical Education 571. Teaching Progression in Team Sports—Men. (2:2:0)
sical Education 572. Teaching Progression in Team Sports—Women. (2:2:0)
sical Education 602. Seminar in Administration. (3:3:0)
sical Education 603. Planning and Administration of Facilities. (3:3:0)
sical Education 604. Intramural Organization and Management. (3:3:0)

sical Education 605. Personal and Public Relations in Physical Education, Health and Recreation. (3:3:0)

rsical Education 673. Physical Education in the Elementary School. (3:3:0) rsical Education 694. Seminar in Readings. (2:2:0) rsical Education 696. Seminar in Problems. (1:1:0)

itical Science 532. Personnel Administration. (3:3:0)

# Religious Education

Professors: Belnap (chairman, 112 S), W. E. Berrett.

Assistant Professors: Madsen, Riddle, J. R. Clark, Pearson, Ricks.

Instructor: Rasmussen.

#### Requirements

The Department of Religious Education offers training leading to the Master Religious Education degree. A student must have adequate preparation on the lergraduate level before beginning work leading to this degree. The admissions committee of the graduate faculty of religion will determine if the student is perly prepared.

Each graduate student must fill all the general regulations and requirements advanced degrees as outlined by the Graduate School. The responsibility of wing and fulfilling these regulations and requirements rests with the student.

#### Master's Degree

Before a student is admitted on a degree-seeking basis, the admissions comttee of the graduate faculty of religion will carefully study and evaluate his paration and fitness for a graduate program. After acceptance, the student must ect his advisory committee, in consultation with the admissions committee, and ist acquire at least 23 hours of formal course or seminar work in his major ild and 15 quarter hours of formal course or seminar work in his minor field; ite an acceptable thesis embodying the results of research under faculty superion; and successfully pass an oral examination.

#### Course Work

The student must complete 45 hours of graduate credit, not including thesis edit. Majors in the field of Religious Education must fill the following require-

vo hours from the following courses:

Religious Education 534 (2), 535 (2), 536 (2), (Theology)

le following course:

Religious Education 610 (3) (Survey of Religious Education)

ree hours from the following courses:

Religious Education 603 (3), 604 (3), 607 (3), 608 (3), (Methods)

iree hours from the following courses:

Religious Education 605 (3), 606 (3), 609 (3), 610 (3), (Curriculum) ligious Education 621 (3), 622 (3): Competence in the subject-matter of these two courses is required. The candidate must satisfy the department that he

is prepared before he may register for either of these courses. ducational Resch. and Ser. 620 (3) (Introduction to Counseling)

History and Philosophy of Religion 651 (3) (Philosophical Analysis) or History

and Philosophy of Religion 653 (3) (Philosophy of Religion)

The student may obtain 15 credit hours in the minor field of his choice i he is a certified teacher. If he is not certified, the minor must be taken in edu cation. The remaining 7 hours of credit required may be taken to suit the need of the particular student.

The Master's Candidate for a minor in the field of Religious Education mus

fill the following requirements:

Advisory Committee Representative

The student should nominate a member of the faculty of the College o Religious Instruction to represent his minor field.

2. Course Work

The student must complete 15 hours of course work as follows:

Six hours from the following courses:

Religious Education 534 (2), 535 (2), 536 (2), 603 (3), 604 (3)
605 (3), 606 (3), 607 (3), 608 (3), 610 (3).

The following courses: Religious Education 621 (3), 622 (3).

Three hours from the following courses:

Religious Education 601 (3), Educational Resch. and Ser. 620 (3) History and Philosophy of Religion 651 (3), 653 (3).

#### **Advanced Undergraduate or Graduate Courses**

534, 535, 536. Advanced Theology. (2:4:0 ea.) Su.

Berrett, Stai

#### **Graduate Courses**

601. Survey of Religious Education. (3:3:0) A. Belna 603, 604. Methods of Teaching Religion in the Secondary School. (3:5:0 ea.) St Berrett, Stal

605, 606. Curriculum of Religion in Secondary Schools. (3:5:0 ea.) Su.

Berrett, Stal Berrett, Stal

Stal

Belna

607, 608. Methods of Teaching Religion in College. (3:5:0 ea.) Su. 609, 610. Curriculum of Religion in Colleges. (3:5:0 ea.) Su.

Berrett, Stal

611. Problems of Teaching Religion. (2:4:0) Su. 621. Teaching the Old Testament and the New Testament. (3:3:0) W.

Rasmussen. Rick

622. Teaching L.D.S. Church History and Book of Mormon. (3:3:0) S.

Clark, Pearso. 631. Analysis of Religious Experience. (3:3:0) W.Su.

The following courses also count in Religious Education: Educational Research and Services 620. Introduction to Counseling. History and Philosophy of Religion 651. Philosophical Analysis. History and Philosophy of Religion 653. Philosophy of Religion.

# Sociology

Professors: Ballif, Bradford (chairman, 1216 SFLC), Symons. Associate Professors: Canning, Christiansen, Dyer, Empey, Smith. Assistant Professor: V. W. Larsen.

#### Requirements

The Department of Sociology offers training for the master's and Doctor Philosophy degrees. It is expected that graduate students will acquaint then selves with all the general regulations for advanced degrees as outlined by the Graduate School. Admittance to a degree-seeking status in sociology on the graduate level requires a minimum of twenty quarter hours in sociology or it equivalent, including introductory sociology, sociological theory, methods of research, and statistics, and a satisfactory passing of a general written examinating tion.

#### Master's Degree

The requirements for the master's degree in sociology are the general requirenents of the Graduate School.

#### Doctor of Philosophy Degree

In addition to the general requirements of the Graduate School, a student working toward a doctorate in sociology must fulfill the following requirements:

1. Completion of Sociology 503, 504, 505, 519, 520, 521, plus any additional

courses that may be stipulated by the student's advisory committee.

2. Passing of an examination in four of the following areas of sociology, two of which must be (1) Sociological Theory and (2) Research Methods. This examnation will be taken after completion of prescribed course work. It must be taken at least one year prior to the granting of the degree.

Sociological Theory Research Methods Social Organization Social Disorganization Demography and Ecology Marriage and the Family Cultural and Social Anthropology Social Psychology

3. Completion of a minor outside the field of Sociology.

4. Writing of a dissertation prepared under the direction of the candidate's advisory committee in which he reports and interprets the results of his research.

5. Defense of the dissertation before a committee chosen from the major and minor fields and from the graduate faculty.

## Advanced Undergraduate or Graduate Courses

503. Systematic Sociology I. (3:3:0) A. Prerequisite: Sociology 111.

Bradford, Canning

Analysis of early sociological thought.

504. Systematic Sociology II. (3:3:0) W. Prerequisite: Sociology 111.

Bradford, Canning, Dyer, Smith

Analysis of the development of contemporary sociological theory.

505. Systematic Sociology III. (3:3:0) S. Prerequisite: Sociology 111.

Bradford, Dyer Analysis of generalizations derived by theory concerning how social interaction, groups, institutions, roles, statuses, and culture affect human be-

Social Ethics. (3:3:0) A. Lloyd **508**.

**Educational Sociology.** (3:3:0) A. **Sociology of Religion.** (3:3:0) W. 512. Smith 516. Ballif, Empey, Smith

(5:5:0) A.W. Prerequisite: Sociology 111.
Canning, Christiansen, Larsen, Smith 519. Methods of Research in Sociology.

520. Practicum in Research I. (2:2:0) W. Prerequisite: Sociology 111. Practicum in Research II. (1-3:0:2-6) S. 521. Staff Continuation of Sociology 520.

524. Advanced Statistics. (3:3:0) W. Prerequisite: Sociology 320.

Canning, Christiansen, Smith Seminar. (3:3:0) A.W.S. Staff

528. Analysis, formation and integration of basic sociological concepts.

Directed Research. (1-3:0:2-6) A.W.S. 542. Development of Social Reform Movements in the United States. (3:3:0) W.

Payne, Symons

Social Legislation. (3:3:0) Ballif

Public Opinion. (3:3:0) S. Ballif, Larsen 550. Effects Upon Society and Individuals of Population Processes. (3:3:0) A.

Bradford, Smith 551. Sociology of Recreation. (3:3:0) W. Ballif

**552.** (Soc-Psych). Personality: Culture and Society. (3:3:0) A. Staff

(Soc-Psych). Group Dynamics. (3:3:0) S. Staff

Bradford, Empey, Symons The Family. (3:3:0) W. Presents historical development of the family as an institution. Emphasizes the family in several different societies and problems created by various family systems.

Class, Status, and Power. (3:3:0) S. 570.

580. Social Relations in Medical and Health Organizations. (3:3:0) Analyzes major values that underlie such organizations as hospitals, public health agencies, and medical and dental professions, together with the structure of the organizations and the function they perform in our society. Course designed for pre-medical, pre-dental and health education students. Prison Management and the Reformatory Treatment of Criminals. (3:3:0)

583. Empey, Smith, Symons

Social Institutions and Social Change. (3:3:0) W. **590.** 

#### **Graduate Courses**

601. Seminar. (2:2:0) W. Staff Develops a conceptual scheme for studying some of the major sociological research projects.

Advanced Contemporary Sociology. (3:3:0) S. Bradford, Dyer, Smith

640. Field Methods and Theory in Social Anthropology. (3:3:0) S.

Canning, Dyer 686. Problems in Race Relations. (3:3:0) A. Ballif, Larsen, Symons

699. Thesis for Master's Degree. (Arr.) A.W.S.Su. Staff

796, 798. Special Research Problem. (1-3:0:2-6 ea.) A.W.S. Staff

# Speech and Dramatic Arts

Professors: H. I. Hansen (chairman, 124 SpC), Mitchell, Morley. Associate Professors: Bateman, Gledhill, Mecham, Woodbury. Assistant Professors: Clinger, Jex. Instructors: O. Rich, Richardson.

#### Requirements

For full graduate standing as a major in public speaking, interpretation, radio and television, theatre and dramatic arts, or speech pathology, the student must present as background Speech 101, 121, 122, 123, 241, and 460, or their equivalents, plus 12 hours of electives approved by the chairman of the department.

During the first quarter of graduate study, candidates for the master's degree must pass a written test to demonstrate proficiency in background in the area in

which they elect to major.

Following are divisions of courses in speech and dramatic arts:

Public Speaking: 524, 525, 621, 622, 623, 643, 692, 699, and 401, 402, 403 may be counted in this field in harmony with general regulations of the Graduate School. Radio and Television: 603, 605, 643, 690, 691, 699; Journalism 449, 450, 452, 455, 671, 672,

Speech Pathology: 541, 542, 545, 546, 547, 560, 640, 641, 642, 643, 645, 646, 647,

648, 656, 693, 695, 699; Psychology 337, 340, 440, 540, 640, 680. Interpretation: 422, 423, 527, 547, 643, 660, 661, 662, 663, 667, 696, 699; English

356, 382, 541, 542, 543, 641, 682.

Theatre and Dramatic Arts: 547, 570, 571, 572, 573, 577, 578, 579, 643, 662, 664, 665, 666, 667, 668, 671, 672, 673, 674, 675, 677, 678, 697, 699; English 541, 542, 543, 641, 682; History 503, 509.

## Advanced Undergraduate or Graduate Courses

524. High School Forensics and Programming. (1-3:1-3:1-9) S. Bateman 525. Debate Coaching. (1-3:1-3:0) A.W.S. Richardson

Course designed for prospective debate coaches covering debate techniques and how they are taught.

527. Story Telling. (3:3:0) S.

Staff

541.		Morley
542.		Mecham
545.	Public School Audiometry. (3:3:0) W. Prerequisite: Speech 473.  Anatomy of Ear and Vocal Organs. (3:3:0) W.	Staff
547	Psychology of Speech. (3:3:0) S. Prerequisite: Psychology 111.	Mecham Morley
560.	Clinical Audiology. (3:3:0) S. Prerequisite: Speech 473.	Staff
570,	571. Creative Dramatics. (3:3:0 ea.) W.	Mitchell
	573. Children's Theatre. (3:3:0 ea.) S.	Mitchell
577,	<b>578, 579. Playwriting.</b> (3:1:2 ea.) A.W.S. Hansen,	Mitchell
	Graduate Courses	
603.	Radio and Television Projects. (2-4:2-4:0) A.W.S.	Staff
	History of Radio and Television Programming. (3:3:0) A.	Staff
621. 622.	Ancient Rhetoric and Oratory. (3:3:0) A. History of British Public Speaking. (3:3:0) W.	Bateman Bateman
	History of American Oratory and Public Address. (3:3:0) S.	Staff
640,	641, 642. Graduate Clinical Practice in Speech and Hearing. (1-3:1	l-3:0 ea.)
0.40	A.W.S.	Staff
643. 645.	Methods and Problems of Research in Speech. (3:3:0) A. Advanced Studies in Stuttering. (3:3:0) W. Prerequisite: Speech	Staff
040.	Advanced Studies in Stuttering. (5.5.0) W. Frerequisite. Speech	Morley
646.	Advanced Studies in Cleft Palate. (3:3:0) A. Prerequisite: Speech	
647.	Advanced Studies in Cerebral Palsey. (3:3:0) W. Prerequisite: Sp	
011.	Transca Branco in Coronar Labort (Close) in Livinguistor Sp	Mecham
648.	Advanced Studies in Aphasia. (3:3:0) S. Prerequisite: Speech 542.	Mecham
656.	Special Projects in Speech Pathology. (1-4:1-4:0) W.S.	Staff
660.	May be repeated to a total of 4 hours.  Theory of Interpretation. (3:3:0) W. Gledhill, V.	Woodhury
661.	· · · · · · · · · · · · · · · · ·	
662.	Regional Dialects. (3:3:0) S. Prerequisite: Speech 260.	Clinger
663.	Program Building and Lecture Recital. (3:3:0) S. Gledhill	, Mitchell
664.		Hansen Hansen
665. 666.		Woodbury
667.		Woodbury
	Styles and theories.	
668.	Special Problems in Theatre History. (1-5:1-5:0) A.W.S.	Staff
671.	Experimental Theatre. (2-4:2-4:0) W.	Hansen
672.		Hansen
673.	Advanced Play Production. (3:3:0) A.W.S.	Hansen
674.	Projects in Theatre. (2-4:2-4:0) A.W.S.	Staff
675,	676, 677. Stage Design. (3:1:2 ea.) A.W.S.	Staff
678.	Stage Lighting. (1-3:1-3:0) A.S.	Staff
690.		Staff
691.	Selected Readings in Radio and Television. (2-4:2-4:0) A.W.S.	Staff
692.	Seminar in Public Speaking. (2-4:2-4:0) A.	Staff
693.	Special Studies in Speech Pathology. (1-4:1-4:0) A.W. May be repeated to a total of 4 hours.	Staff
695.		A.W.S.
		Stair
696.		Staff
697.		Hansen
000	May be repeated to a total of 9 hours.	Staff
699.	Thesis for Master's Degree. (Arr.) Arr.	Dian

These courses also count in Radio and Television:

Journalism 671. Research Methods in Mass Communications. (3:3:0)

Journalism 672. Mass Communications and Society. (4:4:0)

# Zoology and Entomology

Professors: Hayward (chairman, 263 B), V. M. Tanner. Associate Professors: D. E. Beck, W. W. Tanner. Assistant Professors: A. L. Allen, D. M. Allred, S. L. Wood.

## Requirements

Prospective graduate majors should consult the department prior to registration. After a student has been officially admitted to graduate study in the department the Entrance Committee shall direct his program of studies until he has selected an advisory committee and may make recommendations to the advisory committee regarding future course work.

A candidate for a master's degree in the department may select a major from the following fields: (1) Natural History, (2) Entomology, (3) Morphology and Experimental Zoology. His minor may also be chosen from one of these three fields or from a closely related department approved by his advisory committee.

The research project on which his thesis is to be based may be selected from one of the following subdivisions: Natural History (Ichthyology, Herpetology, Ornithology, Mammalogy, Invertebrate Zoology, Parasitology, Ecology); Entomology (General Entomology, Medical Entomology); and Morphology and Experimental Zoology (Comparative Vertebrate Anatomy, Comparative Invertebrate Anatomy, General and Comparative Physiology, Embryology, Genetics.)

## Advanced Undergraduate or Graduate Courses

- 510. Zoological Literature. (3:3:0) A. Wood

  Designed to acquaint the student with the literature of Zoology in preparation for research and thesis writing.
- Local Invertebrates, Excluding Insects. (3:1:4) S. Prerequisites: Zoology 321 and 332.
- 524. Acaralogy. (3:0:6) W. Prerequisite: Zoology 321. Allred 533. Field Entomology. (3:1:4) S. Prerequisite: consent of instructor.
- Beck, Wood
- 538. Immature Insects. (3:1:4) A.S. Prerequisite: Zoology 332.

  V. M. Tanner, Wood
- 540. Aquatic Zoology. (3:2:2) S. Prerequisite: consent of instructor. Staff 550. Principles of Ecology. (5:3:4) S. Prerequisites: Zoology 212, 213, 230; Botany
- 123. Hayward
  Saturday field trips.

  551. Biotic Communities of North America. (3:3:0) W. Prerequisites: Botany
- 430 or Zoology 550.

  Hayward

  573. Experimental Embryology. (4:2:4) S. Prerequisite: Zoology 373.

  Allen
- 576. Advanced Genetics. (3:3:0) W. Prerequisite: Zoology 376. Allen
  578. Radiation Biology. (3:2:2) W. Prerequisites: Physics 113, Chemistry 112, Zoology 365. Allen
  Elementary theory of radiations, interaction with matter, biological ef-
- fects, health physics.

  579. Radiation Biology Laboratory. (2:0:4) W. Prerequisite: concurrent enrollment in Zoology 578.

  Allen
- 591. Special Problems in Zoology. (1-3:Arr.:Arr.) A.W.S. Staff
  Open to students prepared to do advanced independent work in Zoology.

#### **Graduate Courses**

- 610. Systematic Zoology. (3:2:2) W: V. M. Tanner Principles of taxonomy, morphology, nomenclature, genetics, ecology and distribution as they affect animal populations in nature.
- 625. Distributional Study of Parasitic Arthopods. (3:0:6) A.W.S. Beck, Allred 628. Advanced Medical Arthropodology. (3:1:4) A.S. Beck, Allred 630. Internal Morphology of Insects. (3:1:4) S. Wood
- 630. Internal Morphology of Insects. (3:1:4) S. Wood 631. Insect Physiology. (3:2:2) A. V. M. Tanner 637. Insect Genitalia. (3:1:4) W. V. M. Tanner

39.	History of Entomology. (2:2:0) W.	V. M. Tanner
	Advanced Ichthyology. (3:1:4) A.W.S.	V. M. Tanner
45.	Advanced Herpetology. (3:1:4) S. Prerequisite: Zoology 345.	W. W. Tanner
	Anatomy, life history, and taxonomy are emphasized.	
55.	Principles of Zoogeography. (2:2:0) A.	V. M. Tanner
	Cellular Physiology. (3:3:0) A.	Staff
	Physiology of Secretion and Absorption. (3:3:0) W.	Staff
	Physiology of Muscles and Nerves. (3:3:0) S.	Staff
	Advanced Embryology. (3:3:0) A.	Allen
	<b>691, 692.</b> Research. (2:0:4 ea.) A.W.S.	Staff
	697. Graduate Seminar. (1:1:0 ea.) A.W.	Staff
199.	Thesis for Master's Degree. (Arr.) Arr.	Staff

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